All Clear—"TripleX" Safety Glass

THE SPHERE, JANUARY 13, 1940
With which is incorporated "BLACK & WHITE." 1/-

THE SPHERE

Vol. CLX No. 2086 WITH WHICH IS INCORPORATED THE GRAPHIC JANUARY 13 1940

DINNEFORD'S

pure fluid MAGNESIA

for Delicate Stomachs

BLAND • SAFE • EFFECTIVE

ALSO OBTAINABLE IN TABLET FORM

For over 100 years Dinneford's has been the safest and most reliable corrective for all digestive disturbances to which those with delicate stomachs are prone. It is so bland that it has never harmed the most delicate infant and yet so effective that there is nothing better for adults.

THE ARISTOCRAT OF CIGARETTES

DE RESZKE —*of course!*

435

CUSENIER'S

LIQUEURS (36 Kinds)

NONE BETTER IN THE WORLD
OFFER GUESTS THE THREE BELOW:

FREEZOMINT
The leading brand of Crème de Menthe
APRICOT BRANDY • CRÈME DE CACAO

SPORTING BRONZES

Every sportsman appreciates a work of art which reminds him of happy days at home and abroad, in the field and in the ring, with horse, hound, gun, rod, rifle, or the gloves, and for those to whom considerations of space or price make the hanging of original pictures prohibitive, a sporting group in bronze has a special attraction. At the Sporting Gallery may be seen many such bronzes by sportsmen-artists, and from amongst them it is easy to select a delightful and very individual gift for a sportsman friend.

Prices from **4 gns.**

THE SPORTING GALLERY, 35, Bury Street, St. James's, London, S.W.1

"Pommie"

THE PERFECT PICK-ME-UP

BABY SIZE 6d.

MADE BY GAYMER'S OF ATTLEBOROUGH

THE ARISTOCRAT OF LIQUEURS

Drambuie

THE DRAMBUIE LIQUEUR CO., 12, YORK PLACE EDINBURGH

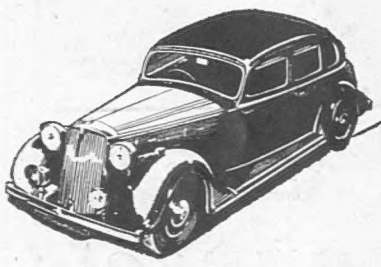
When you are dining out ask for Drambuie. You will enjoy its exquisite flavour and intriguing bouquet.

ALL CLASSES OF INSURANCE TRANSACTED

CAR & GENERAL INSURANCE CORPORATION LTD.

83, PALL MALL, LONDON, S.W.1.

EXIT DEPRECIATION



The Rover Company is being called upon for an increasing amount of specialised Government work — the manufacture of new Rovers is therefore increasingly limited. It follows that the Rover of to-day is more than ever a sound investment. With good care it is possible that not only will it not depreciate, it will actually appreciate in value. And in the meantime its Freewheel (long a standard Rover component) cuts running costs, and such features as Automatic Chassis Lubrication reduce maintenance problems.

ROVER

One of Britain's Fine Cars

THE ROVER COMPANY LTD., COVENTRY. LONDON SHOWROOMS: HENLYS LTD., DEVONSHIRE HOUSE, PICCADILLY, W.1

CVS—355

Let's see!—

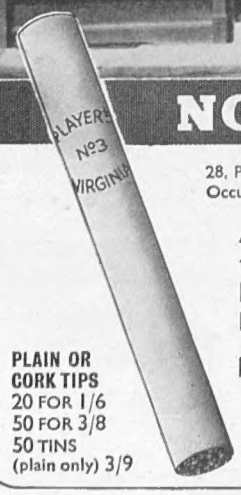
ROYAL "EDISWAN" LAMPS

Obtainable at all electrical suppliers

L.I

NOTABLE NUMBERS

28, PALACE STREET, CANTERBURY. The 'Old Dutch House'—dates from 1617. Occupied for 200 years by the Huguenots who carried on their weaving there.



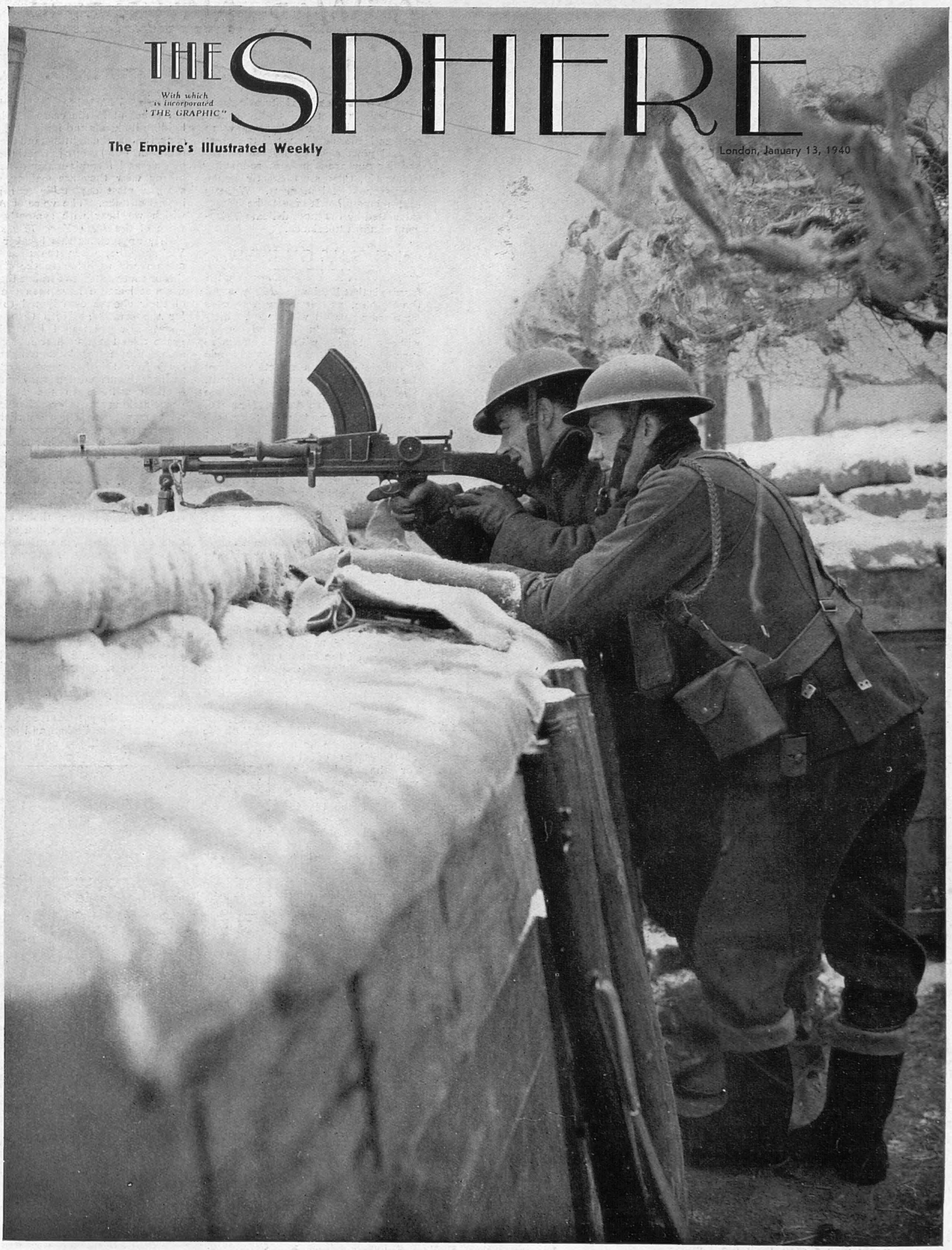
Another Notable Number with a claim to distinction is Player's No. 3—a cigarette with that little extra coolness and mellowness so appreciated by smokers.

PLAIN OR CORK TIPS
20 FOR 1/6
50 FOR 3/8
50 TINS (plain only) 3/9

PLAYER'S **NUMBER 3**
EXTRA QUALITY VIRGINIA

3.P.668

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly
London, January 13, 1940



DEFENDING THE WESTERN FRONT UNDER ARCTIC CONDITIONS

Two B.E.F. Watchers Guarding an Advanced Position in the Snow

The Western Front has not escaped the great fall of snow which has recently covered Europe from end to end. During recent days Arctic conditions have prevailed. The whole system of front lines and connecting trenches, fields of view, and other points have been covered with immaculate white, and under active conditions some form of white camouflaging might have been rendered necessary. But the thaw of the earlier days of January intervened. The B.E.F. troops are well shod for the cold, and lined gloves guard against frozen finger tips. Ministerial and official visitors have had difficulty in moving from point to point—so glassy have been the roads

Postage—Inland, 1½d.; Canada and Newfoundland, 1½d.; Elsewhere Abroad, 2d.

THE KING GOES OUT OVER THE SNOWY GROUND, "SOMEWHERE IN ENGLAND," TO VISIT HIS TROOPS IN THE SOUTHERN COMMAND

Last week, His Majesty, well coated for the weather, paid a visit to the Southern Command to meet the units which go to make up a modern infantry division, which is shortly to join the B.E.F.

A WAR NEWSLETTER —No. XIX

32-34, ST. BRIDE STREET, E.C.4
Wednesday, January 10, 1940

MR. BELISHA.—Mr. Belisha has gone from the War Office and Cabinet. His resignation was a surprise outside Cabinet and high Army circles, and public anxiety to know the reason why was understandable. But silence is best. I suppose no War Minister (not even Cardwell) has his name associated with Army changes so far-reaching, so radical and so numerous as Mr. Belisha has. He is a man of great push and go, ruthless, no doubt, in achieving changes and reforms which he conceived to be right. He gave his whole soul to his job. No man ever succeeded as Minister of Transport; to date no man can. Mr. Belisha did fine work as War Minister, I have no doubt. He was a very "modern" type. To me his habit of constant personal publicity was revolting. It made me bilious to see him in press photographs, posing at his office desk and conference table. But of course he employed publicity for his ends as War Minister, sincerely believing, as Goebbels does, in the value of propaganda. Probably only Old Stagers still recall in war-time the ministerial dignity of other days, and still, even in war-time, believe in it. If Mr. Belisha made enemies and critics, he made many firm friends and admirers, too. One of them surely is General Lord Gort. Mr. Oliver Stanley succeeds him. That is in the British tradition, at least. When in doubt play a card from the Knowsley suit. How many Stanleys (not to say Edward Stanleys) have held high office under the Crown since the sixteenth century? Lord Macmillan's resignation caused no surprise. He makes way for Sir John Reith, for whom a war job has too long been to seek. Sir John is something of a dictator and now that he has a job (and only needs a seat) he will show us what can be made of a Ministry which many of us detest, lock, stock, and barrel. He can hardly fail to improve its workings. Sir Andrew Duncan comes in (in the war tradition) to the Board of Trade as a specialist outside politics. They do well, but, history shows, are not apt to remain long in any one post under Government.

MR. ROOSEVELT'S SPEECH.—Events, conditions and opinions of and about the war move and change so rapidly (while the war remains to be fought) that I confess that Mr. Roosevelt's frank and clear speech of January 3 brought to me not only pleasure but surprise. The modern technique of neutrality is beyond my comprehension and I had begun to doubt whether the greatest champion of peace, order, Christianity, liberty and honour, had not of late begun to blow hot and cold. Neutrality in the present war certainly demands a new technique. In most of the great wars of history there have been two sides to the issue; each side had a case of a sort. In this war it is not so. None but Germany considers that Germany has a case. No nation but Germany (and apparently Britain) considers that the Allies need plead their cause and put out their "case." It is accepted as a crusade against the powers of evil and in such a struggle it is obviously difficult for a professing Christian to be a neutral and to sit on the fence. A Christian (according to the Book) must in such a case be either for Paul or for Apollos—he must be white or black but never pie-bald. So for individuals. With nations it is obviously different. The leader of a strong nation must keep his people out of the holocaust as long as he can—his trusteeship, he conceives, overrides the Christian duty of the individual in the struggle of good against evil. He must save their bodies. But, in securing that, he is concerned that his people shall save their own souls. And that, I think, was the gist of Mr. Roosevelt's speech. He re-stated the faith (for which the Allies are fighting to the death) with all the firmness and all the clarity of which a man is capable, and he left no doubt in any mind that that faith and that ideal are his and his country's as they are ours and France's. But if the great neutral powers which uphold liberty and decency are to help in re-making the world, they must exactly gauge the psychological moment. What is that moment? It must be nicely calculated by the most delicate instruments known to science.

NEUTRALS ON THE WAR —AND THE PEACE.—What I foresee is that England and France and the Empire, as this weary war goes on bleeding us all whiter and whiter of our resources in men and money, will come to view with more and more surprise and doubt this present attitude of certain great neutral states about the peace which will one day follow it. These neutrals are so clear that, when it comes to peace terms, *they* will have a principal part to play; *we*, who have fought the crusade, will sit under the conference table, panting and licking our wounds. The modern technique of neutrality makes it appear that America regards this war, very rightly, as beastly imbecility, and all the combatants are more or less tarred with the brush of criticism. War is disgusting folly; therefore we who have taken up arms in the crusade, to preserve the liberty of small states and the sweets of civilisation, are ourselves under suspicion of lunacy. I can quite understand America's dislike of being told by our statesmen and propagandists that we are fighting *their* battle, and being told "what they ought to do." But if the cause for which we are now fighting to the death is *not* the cause—the same cause—for which America has always stood and often bled, and which she has constantly preached and upheld, and now reaffirms, then the "ideology" of the U.S.A. would be no more substantial and real than that of the Nazis or the Bolsheviks. Thus, while one sympathises in America's determination to keep out of the bloody and imbecile business as long as she can, one begins to see ahead danger to our mutual relations in American statesmen's insistence that it will be their task to play the mightiest part in achieving a sound basis for lasting peace. In history and human affairs one learns that usually the man who pays the piper calls the tune and I clearly see ahead the day when France first and then Britain may begin to resent this attitude.

THE PIPER-PAYER CALLS THE TUNE.—I foresee already (and what is the use of burying *our* heads in the sand) that France does not mean to end this financially disastrous war leaving her frontiers open to another menace in another decade. We are all determined to secure justice for all nations, as far as may be, including Germany, and disarmament all round, but the aggressors must and will get justice and disarmament first as the only possible guarantee of a common effort by all nations to build up a new, a decent, a less self-seeking, structure of civilisation. And in this settlement neither France nor Britain are going to be the dogs ordered under the conference table (to lick their wounds) while untouched neutrals settle the boundaries and the conditions of the new order. It's not in nature, and a bloody war to the death never does and never will alter human nature for the better. That is the lesson of history. On the contrary, it produces a shameful madness. *Vide* 1919. If those who have not gone out in the crusade, while upholding its ideals and its justice, already conceive that the fighting (and the paying for the crusade) is *our* job, and the peace-talking and formula-making *their* job, in my view they are making, all too soon, a most deplorable and psychological mistake. The voice of America which we hear with sympathy is the voice of the *New York Times* which clearly appreciates this breaker ahead. We shall be, when the time comes, more ready to listen to the claims of this or that neutral to arrange the peace, when at least we have seen the colour of their cheque contributed to paying for the crusade. Until then, silence about their great part in making the peace after the slaughter is very desirable. Let us at least blow the fog away from this foreground and try to see how the present tendency of neutrals in their attitude to the war and to peace-making may grievously affect their relations with the Allies and their hopes of a permanent settlement. I personally can clearly see what is coming if silence is not observed.

NOW IS THE TIME.—It is not to peace *after* the slaughter that neutrals should turn their eyes and combine their resources, but to a workable scheme of world settlement, *now*, *before* the holocaust. And I believe such a scheme is practicable if the Powers that do not fight could forget their national problems and see themselves as units in civilisation. They could put forward with all the pressure which their co-operation and combined determination to see reparation made and justice done would bring to bear, a scheme for settlement which the combatants on both sides would find it hard to reject. At least, they could and should try to do so at once. If they delay, God knows what sort of peace may come from broken and embittered victors. It will be nothing short of purblind madness if once more the civilised world is going to forget the root cause of the more vindictive clauses of the Versailles Treaty. That cause was the bitter grievances of a devastated and desecrated France and Belgium and all the fears which those experiences

THE GREAT TREK CONTINUES — TWO OUTSTANDING EXAMPLES OF THE WEEK

The Government continues in its policy of evacuating London officials and does not dissuade the big and little industries to follow suit. The British Overseas Airways Corporation — formerly Imperial Airways and British Airways—have evacuated its staff to a western town. Figures once familiar at Airways House and Terminal House, Victoria, and at Croydon Airport, have now become

THE POLITICAL SENSATION OF THE WEEK-END — THE RETIREMENT OF MR. HORE-BELISHA FROM THE WAR OFFICE

The news that Mr. Hore-Belisha, very largely the creator of the new mechanised, democratised army, was to leave the War Office came over the wireless at midnight on Friday of last week. It greatly astonished the nation, which was unprepared for this change and eagerly awaited explanations

LORD DERBY'S SON BECOMES THE NEW WAR MINISTER

Mr. Oliver Stanley is to direct the wielding of the sword which Mr. Hore-Belisha forged. Mr. Stanley, it is surmised, represents a more traditional control of military matters

SIR JOHN REITH, OF B.B.C. FAME, BECOMES THE NEW M.O.I. MINISTER

Sir John's personality is of the type which cannot escape observation. How he will handle the wonderfully diverse staff of the Ministry will be awaited with interest

SIR ANDREW DUNCAN BECOMES THE NEW HEAD OF THE BOARD OF TRADE

A highly useful but less dashing appointment is that of Sir Andrew Duncan to the Board of Trade which looks after a multitude of things connected with industry

kept alive. In a general condemnation of the treaty in recent years the spirit in which it was framed was entirely forgotten, and the inevitability of that post-war spirit and of its consequences. Are we now going to neglect the obvious probability that, *if this war also is fought out bitterly to the death*, the same spirit must be engendered in the victors which will produce the same fatal determination to make the aggressors pay and to emasculate them for a generation? If the neutrals are to play a great role (as they must) in evolving a permanent peace it is *now*—or (I think) never.

THE EPIC OF FINLAND.

—I hope to be spared to read one day in peace and in a good English translation a personal story by one of those who played a part in the glorious epic of the Finnish war of self-preservation. When eternal peace (?) comes, the old Adam will die hard, and still there will be wicked old men (like I) who will read with pride and admiration and constant thrill that epic story of the "suicide squad" and how they made their way over the frozen snow, themselves white, light, keen, and bitter as snowflakes driven by a north-easter, through the Russian lines to cut the Murmansk railway track. And the full story of that glorious defence of the Mannerheim lines, of the Petsamo dog-fights, and all the glories of this modern Thermopylae in the Arctic snows. For this story of Finland is an epic of the Heroic age — it stands on the shelf beside the story of David and Goliath, of Leonidas and Xerxes, of Horatius, of Drake and Philip of Spain, of Zeebrugge, of Scott of the Antarctic, the shelf of the history of human courage, determination and endurance which stretches, a continuous chain of laurels, from 480 B.C. to A.D. 1940, 2,500 years.

"billetees." The entire staff, totalling 1,500, left London by rail and road in three parties, advance, main, and rear. Members of the Airways staff are known locally as "guinea pigs." They are housed and fed in private homes at a standard rate of a guinea a week. In working hours they fill the most fashionable hotel in the town. The hotel's famous ball-room—scene of romances dating from the Regency period—is lined with steel filing cabinets, adding machines, and loose-leaf ledgers. The evacuation of the Ministry of Health created something of a sensation last week, the Government carrying out the scheme in the face of a definitely expressed desire on the part of the staff to remain. The Ministry's new quarters are at a famous hotel in Blackpool. The ballroom and the solarium have been converted into offices for the pensions department, the tea-room is now a filing-room, and mail is sorted in the reception hall. The staff lunch in the luxurious dining-room

COLOSSUS IN PAPIER-MÂCHÉ.

— Words are a mighty force under peace conditions. One grows tired of saying that their value is exaggerated in war-time. The test of war will bring down in shame and ruin many edifices vaunted by propaganda as permanent sky-scrapers. One or two have fallen already like a child's house of cards, kicked down by the baby; notably the great Soviet machine. Boosted by words from inside with no right of entry from outside, its façade had come to look grand and terrible enough viewed from a respectable distance. *Terruit orbem, terruit gentes.* Britain tried vainly to woo the Colossus so that its potential powers might check the then known aggressor in Europe. Germany was scared yellow by its menacing potentialities, so yellow indeed that her heart turned yellow and she signed away the articles of her faith to secure at least the benevolent neutrality of the unknown god. And now the baby has kicked over the card-house, the façade has fallen in, and behind was only rag-stuffing, and cotton wool, and rotten lath, and damp plaster. The unknown god has feet of clay—nay, of sand. The mighty war machine must be pushed from behind by hand, the big donkey will only move with a carrot held in front and a goad applied to its behind. The great economic machine is a paper scheme. The railways don't work, the factories turn out cheap-jack, the air armadas don't afford a sporting shot, the bombs are duds and the bombast moonshine. It is a paper Soviet system, an edifice of papier-mâché, a propaganda creation which vanishes when it meets the hard light of day and fact. How quickly the Nazi bullies readjust their ideas about, and their attitude to, the Colossus. Adulation already shows signs of yielding again to hectoring. While there was a chance that the dog might bite or the goose lay golden eggs, there were bones and pats and mealmash for Russia. But when the showdown of the Soviet bluff is clearly comprehended, when the bust straight is on the table, Stalin will quickly leave the chair in the director's room, and Hitler will once more assume control of Ideologies Limited. If ever the Soviet Union craves help from Germany to overcome the Finns, the Homeric laughter of civilisation will immortalise the Finnish epic more certainly than will Finnish heroism.

A PERSONAL GOD.

— I have listened of late to some of the broadcast sermons of Canon Cockin. He is a preacher of great intellectual range and clarity of thought who can yet make himself and his arguments intelligible to the ordinary man. In that I compare him with Canon Gore in the Westminster period. Yet how different are the methods of the two men. The one compelled and convinced by the enthusiasm of his faith revealed in voice, eye and gesture; the other, unseen by his hearers, by close reasoning and clear exposition, cool as that of a professor of science. Canon Cockin's warning is apt in these times when he referred to a man's conception of God as a Being in the image of man, a God who was the ideal of the ideal man or rather each man's conception of what his ideal man would be. A God who broadly (and perfectly) thinks as we think, not only on questions of morality but on world order. Such a view of God is devastating to our faith in days like these; for, if we confine our conception of God to a Being who shall be the Arbiter of the moral law, the ethic, of this little world, how will our faith stand firm when we continue to wait for justice to be done on the guilty and for relief to be given to innocent victims? How (in small and in brief) shall we account for the earthquake in Turkey or the successful dismemberment of Poland? His ways are not our ways — that is Canon Cockin's stern warning.

RATIONING AND RESTRICTIONS.

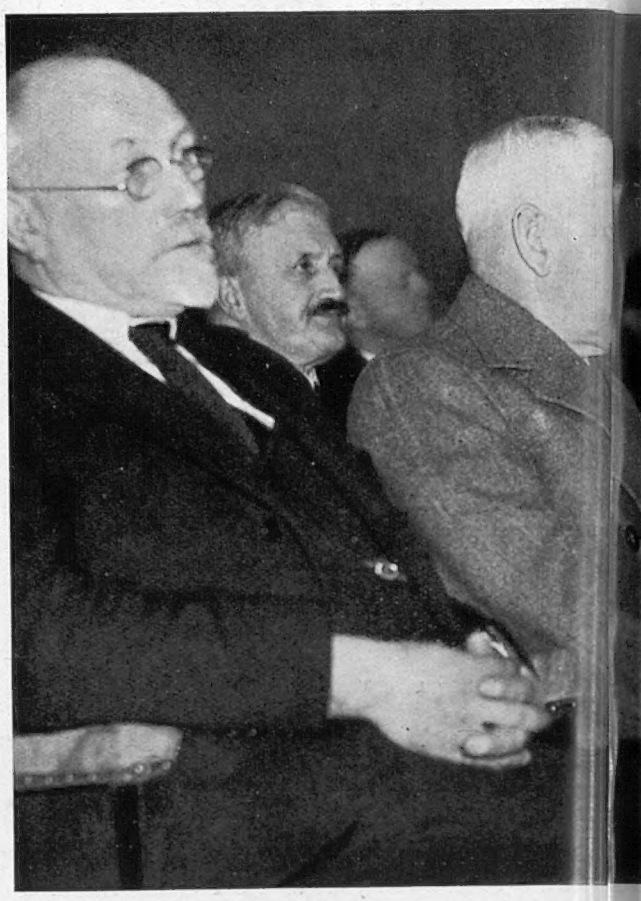
—With the fifth month of the war and a new year we are now in the heart of the war business on the Home Front. Rationing is a necessity and inevitably a vexatious necessity. Whether some of the vexations could be lightened, I am not in a position to say positively. What we do know is that we started this war almost as snowed under by paper restrictions and forms as we were when the last war ended. Just as taxation and debt have continued to grow since 1914, so has the vexation of "forms." The extra work involved in keeping a motor-car, paying one's taxes, running a farm or business, had become before September, 1939, an elaborate and very tiresome handicap and deterrent. Now, of course, it has immensely increased again. One can, of course, cite instances where fussiness seems to add needlessly to our burdens. Take the petrol ration book or the extra ration applications. One's car licence book has to be forwarded with each application every month or two and is already obliterated with stamp marks. Yet the details showing the licence taken out for a year could be noted in January and that necessity might well be spared us with subsequent applications. Most people are honest, perjury is a crime, and reasonable trust in the people might save time, money and vexation. Another instance is the maddening delay and the tyranny of control of timber cutting. In war bureaucracy breeds like rabbits and I suppose it is inevitable that every new restriction must bring a fresh crop of vexations and a fresh breed of bureaucrats. But to what extent does the policy of treating the citizen as a man who will cheat if he can, prevent loss to the revenue? I doubt if the precautions taken pay for themselves.

THE OLD STAGER

A SEVEN-DAY R

THE DUKE OF KENT VISITS A.R.P. POSTS IN SCOTLAND

The Duke examined with interest all the precautions taken in the Linlithgow and West Lothian districts of Eastern Scotland. He is seen talking to a driver member of a squad



THE FARMERS COME TO TOWN TO HEAR HOW THINGS ARE GOING

THE CHILDREN'S LECTURES OF THE ROYAL SOCIETY OF ARTS CARRY ON

The children have flocked to John Street, Adelphi, during the past few days to hear the Christmas lectures by Dr. H. W. Melville (Cambridge) on "New Lamps for Old"

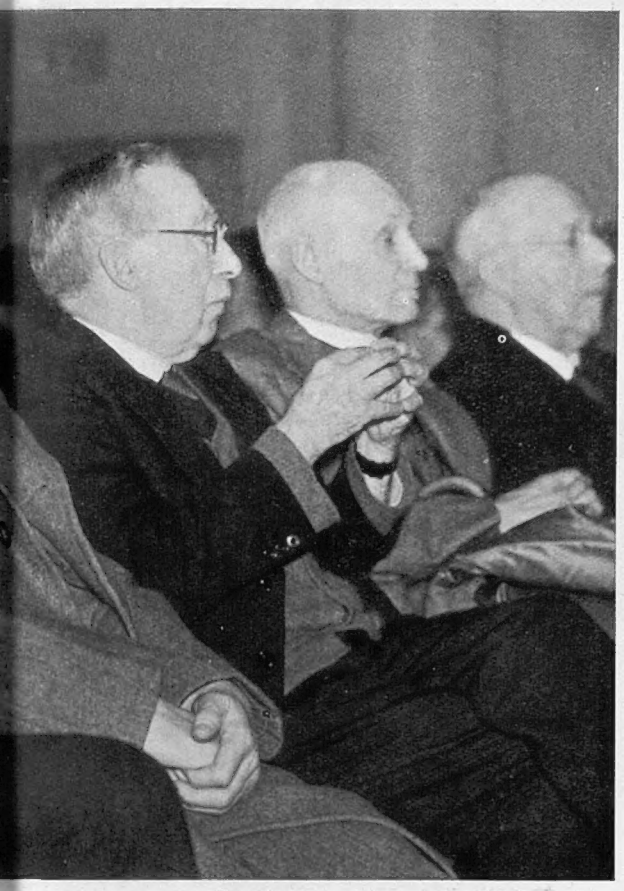
A BEAVER CLUB IS ESTABLISHED FOR CANADIAN SOLDIERS IN THE OLD L.C.C. OFFICES IN SPRING GARDENS

The new club, which it is hoped will be ready in the middle of February, will be a successor to the famous Beaver Hut in the Strand, which endeared itself to many a Canadian soldier

THE SECRETARY OF THE COMMITTEE OF IMPERIAL DEFENCE IN DOWNING STREET

A new impression of Major-Gene H. L. Ismay in Downing Stre when he had been attending meeting of the War Cab

RECORD of the News from Far and Near



The Minister of Agr cu ture, Sir Reginald Dorman-Smith, addressed members of the Farmers' Club a few days ago when they assembled at the Royal Empire Society

THE UNDER-SECRETARY OF STATE FOR AIR, CAPTAIN HAROLD BALFOUR, VISITS THE WESTERN FRONT

Well-booted for the snowy ground, Captain Harold Balfour toured the aerodromes of the R.A.F. in France. The Under-Secretary for Air has a vigorous practical knowledge of flying

CAPTAIN SIR PETER GRANT LAWSON, FAMOUS STEEPLECHASE RIDER, MARRIES MISS VIRGINIA DEAN AT SULHAMPSTEAD (BERKS)

The bride and bridegroom meet Bunty, the bride's favourite dog, when leaving the church

THE MAHARAJAH OF NEPAL PAYS A VISIT TO CALCUTTA AND ATTENDS THE RACES WITH THE VICEROY

The magnificent response of Nepal at the declaration of war lends interest to this picture of the Maharajah. Nepal's contribution consists both of money and men

FINLAND'S STAND

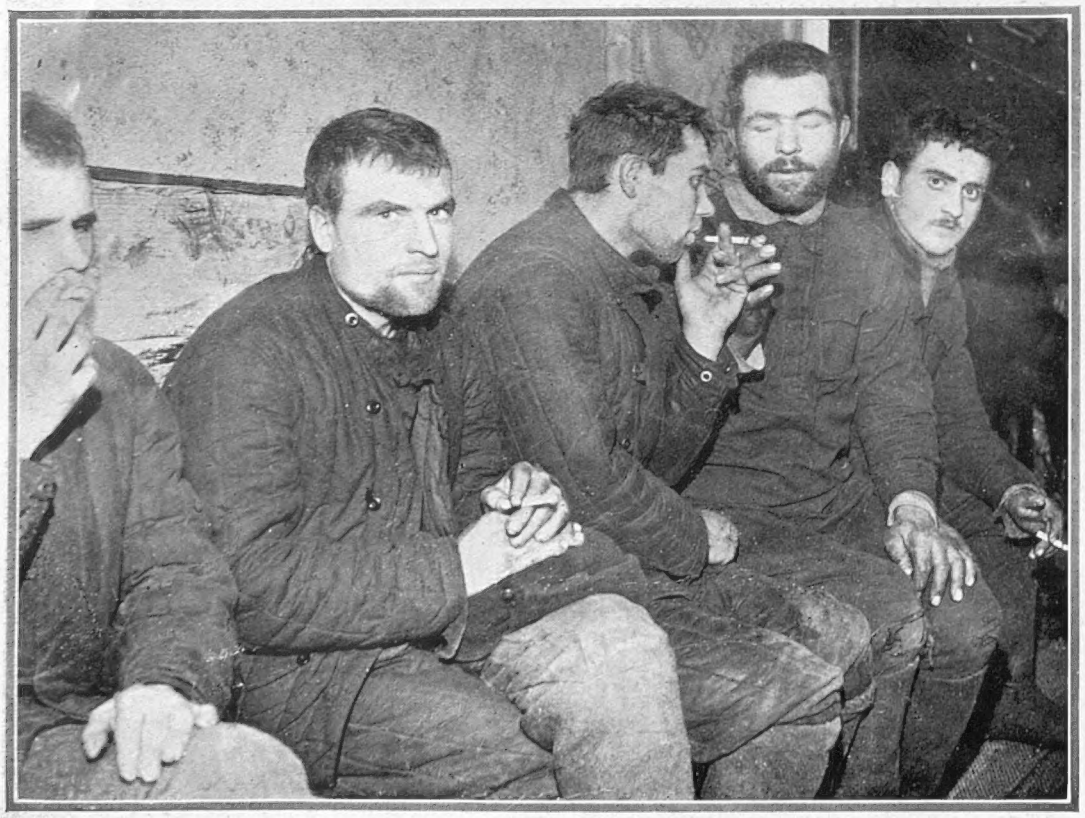
CAPTURED SOVIET TROOPS WEAR A VARIETY OF HEADDRESS

During the past three weeks the Finns have made very considerable captures. The latest enemy drafts are ill-clad as compared with the Finns. The prisoners wear a woollen headdress with a little peak, suggestive of a Tamerlane helmet, interspersed with any woollen cap or covering they can obtain

ARMED WITH THE WEAPON ON WHICH DICTATOR COUNTRIES PLACE SO MUCH RELIANCE

HELMETED AND GLOVED, THEY SAT IN A MELANCHOLY ROW IN A FINNISH CAMP

Mixed with faces of a more standard European type are men of very pronounced physiognomy. There are no pleasant eyes or any sign of the grin-and-bear-it attitude

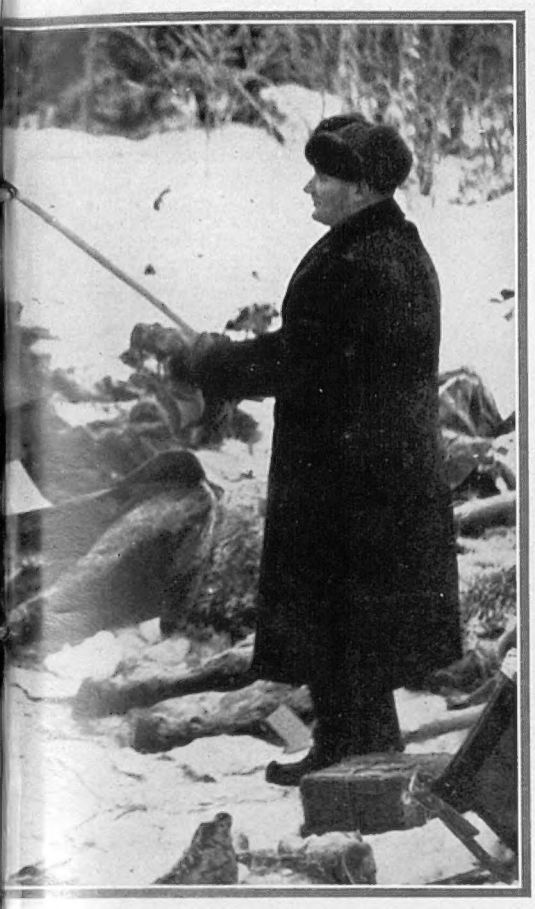


SOME HEAVILY-BUILT MEN WERE AMONG THIS BATCH OF RUSSIAN PRISONERS TAKEN ON THE NORTHERN FRONT

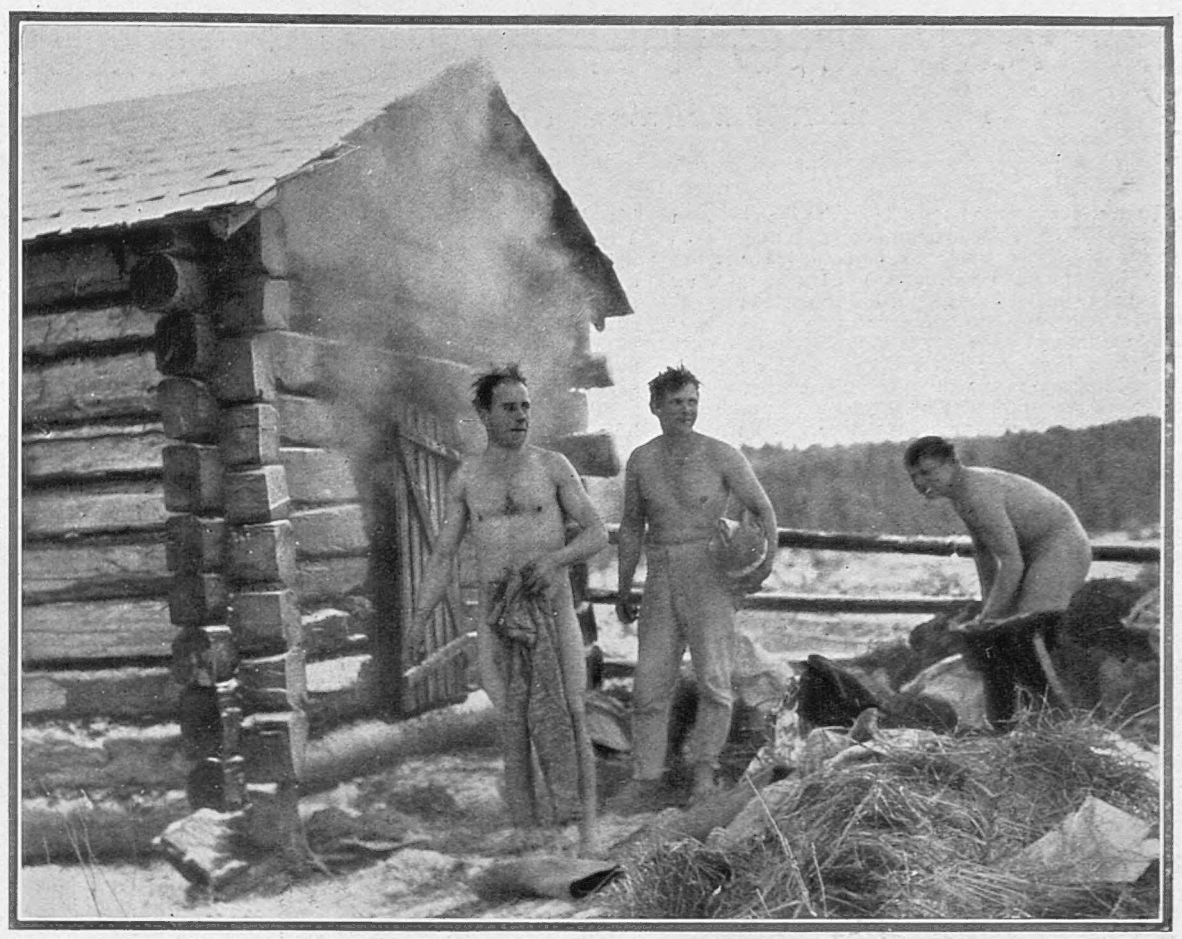
The eyes and eyebrows of many of the prisoners exhibit distinctly Eastern characteristics. This little group were enjoying cigarettes provided by their captors

WEARING THE LAPLAND TYPE OF FOOTGEAR, THESE FINNISH SOLDIERS EXAMINE A SOVIET SEWING MACHINE TAKEN FROM AN ENEMY CONVOY

Loot Captured from the Soviet Forces: How the Finnish Soldiers Keep Fit



Among the loot discovered on one of the northern sectors were rolls of propaganda film, to be used by the Russians when they had triumphantly entered Finnish towns and villages



PRACTISING "TAUNA" IN THE ICY AIR, THESE FINNISH SOLDIERS KEEP FIT FOR THEIR ARDUOUS WORK

One of the problems of the Finnish command is the need of fresh troops for the intensely active northern fronts. The men are performing prodigies of work and this "Tauna" method of taking a hot bath and cooling off in the icy air of a Finnish winter helps to keep their endurance at a high pitch

All kinds of loot have fallen into Finnish hands, including a light railway engine, camp fitments, and a large number of machine-guns and ammunition

COMMANDEERED MOTOR COACHES STRIKE QUITE A FAMILIAR NOTE IN THE WAR CONDITIONS OF FINLAND

White-clad Finnish troops are now being run to various points in civil motor coaches taken off their regular services for army use. This one ran between Ylitornio and Rovaniemi. *Below*—A young Finnish soldier using a captured sharpshooter's rifle

THE AMAZING DEFENCE OF THE FINNS

Fighting the Russian Hordes at 60 deg. Below Zero—Hitler's Dilemma (The Strategy of the War—XVI)

By GENERAL SIR CHARLES HARINGTON, G.C.B., G.B.E., D.S.O., D.C.L.

AS one starts to write an article on the war between the Allies and Germany, it is difficult to get one's thoughts away from two events, both outside what we may call "our war," which just grip us at the moment. One is the amazing defence put up by the Finns. It may be that these vast reinforcements which we hear are being sent up by the Russians must overwhelm the Finns, but they have not done so yet, and I am optimistic enough to think that they never will, at any rate, at this season of the year. I have great faith that the stout hearts of the Finns, aided by ice and snow, and by help in volunteers and material now on its way from many quarters, will cry "Halt" to those Russians. I cannot suppose that whether they be Russians or Prussians those reinforcements will derive much joy from being ordered to fight with enthusiasm in a temperature 40 to 60 deg. below zero. The conditions must be too terrible to imagine.

It is hard to visualise what must be going on now behind the Russian lines. Those vast numbers have got to be fed and maintained, and their animals also. Reinforcements have to be got forward. Sick and wounded have to be got back. Railway tracks have apparently been cut or damaged, and the intense cold must be beyond description. I am a firm believer in what my old chief, Lord Plumer, used to call "back arrangements." The picture I have tried to give above does not favour good "back arrangements." Failure in this part of warfare has happened in Russian history before, and only in 1920 it was the failure of General Wrangel's "back arrangements" when only 98 miles from Moscow, which caused his whole army to come tumbling back to the Crimea, and then to come, with women and children, in seventy-five ships to Constantinople, a sight which I shall never forget.

The Finns know well that the Russians are feeling the weather badly, and that on their skis they can raid and damage the enemy communications, and will not cease to do this.

As I write, Hitler is threatening every kind of vengeance on anyone who has the audacity to help the Finns. He threatens the neutrals right and left, but his threats seem to carry less weight each day. The Russian attacks have exposed to the world that the much advertised steam-roller does neither steam nor roll as well as it professes to do. This must make Hitler think whether he was really well advised to put his money on Stalin. He may have been right, but he cannot possibly fail to notice that several of his so-called "friends" before this alliance now cut him in the street. Whether that affects a man with a skin like Hitler's, we cannot know, but what will affect him is the fact that the neutral countries will certainly prefer to trade with the Allies, who can and will pay them for their goods, rather than with one who heaps abuse on their attitude.

SWITZERLAND MOBILISES

When the Army is mobilised in Switzerland a Commander-in-Chief of the Army is appointed by the Government. His period of office is for the duration of hostilities. Here is General Henry Guisan, who has been appointed to this office, with the President of Swiss Confederation, President Piley Golaz

The other event to which I would allude is the tragedy in Turkey. As I said last week, I knew that territory. I visited Samsun and other places along that coast. It is all too terrible to contemplate. My old friend, General Ismet Pasha, now President Inönü, has been up there directing relief operations. I sent him a personal wire of sympathy as soon as I heard of the tragedy. I sent it in the ordinary way from the post officeaddressed to President Inönü. I own that I was a little awed when I heard on the wireless of all the official messages being sent through the British Ambassador in Turkey. It was, therefore, a memory which I shall always treasure, to receive the following telegram in reply from the President from Ankara:—

"*Très sensible vous remercie pour vos condoléances, Ismet Inönü.*"

That was the act of a true friend, and one which one can never forget. We became true friends that night at Mudania when we signed that convention which avoided a war with Turkey within 75 mins. of the opening of fire. We have kept in touch, and have been friends ever since. That he is President of Turkey now, I rejoice, but to me he is, as he was then, a brother general and comrade. I only wish that I was in a position to afford some practical help to him and his nation at this moment. I hope very much that the appeal which is being made in this country will meet with the response which it deserves.

After discussing those two points, Finland and Turkey, we must now get back to our war. We have now entered the new year and, I hope, are settling down to real business. That business is to knock out Hitler and Hitlerism. Let us start from the present situation. Two large armies watching each other. The Allies, with no intention whatever of attacking the Germans, in spite of Hitler's statement that we are afraid to do so. The Germans equally wise. They are not going to lose 1,000,000 lives in attacking the Allies. The German nation will stand a lot, but not that. The casualties involved would "unstick" even Hitler.

Then we come back to the problem, "What will Hitler do?" It has been interesting in the Press of late to read of the strategical ideas put forward and, if we may believe them, based on what Hitler or his confederates have said. It is unlikely that Hitler or his confederates would start their plans by telling the Press. According to reports, the war may be fought out on the Western Front, in Belgium or Holland or in Scandinavia, in Rumania or Turkey, or in the Caucasus, Iran, Iraq, Egypt, Afghanistan and India, Near East, Middle East, Far East; in fact almost everywhere in the world has been mentioned except possibly the Isle of Wight. I see Lord Lothian thinks that Hitler will one day put all his sea, land, and air forces into one big bang at the same moment. I wonder. It looks as if Hitler has got himself into a very difficult situation. Things have, evidently, not gone as he wished.

Since the war began, nearly 1,000,000 tons of goods for Germany have been held up. It may have had little effect up to the moment, but it is going the right way, and that applies to all our doings by sea and air. We may at any moment have a nasty setback. We are bound to have them. We nearly had one recently over a battleship or cruiser which was hit. Those things have to be faced. The winning factor is unity. Here we have to-day the whole Empire as one team. The mother country, the Dominions, India and every colony just one family, straining every nerve to help in the main cause. No sacrifice is too great. All are determined to go through to the end and so are our Allies. That determination must prevail.

Contrast that with the enemy. We do not know the details, but from what we can gather it is quite clear that Hitler has not got the team spirit which we have. He is swopping about his horses. Field-Marshal Göring is going to have other powers. Stalin is also doing some swopping. All that is to the good. It shows that the machines are not running too smoothly. What we have to hope for is that real dissension will arise, and that someone in a fit of temper will throw a spanner into the machinery, and that there will then be a real explosion. The Allies, at the moment, have a perfect team, and that is the secret of success. In my opinion, the main road to success is the breaking up of the German as well as the Russian team. I think the team, or lack of it, is the weak spot in both nations at the moment, and that the breaking up of these teams should be our main objective to-day by our propaganda and other means.

Looking at the problem as a whole, I think there is only one thing that is certain and that is that Hitler will not do what he is expected to do. From the start he was expected to bomb London and everywhere else. His threats succeeded in turning most people and businesses out of London and in making everyone's life thoroughly horrid, and in sending thousands of children out of London and its surroundings. I think that every action taken has probably been right. If the war had gone as we had expected we should have been the first to criticise if these precautions had not been taken. Do not let us argue on that point. Let us be thankful that nothing so far has happened.

The resignation of Mr. Hore-Belisha came as a great surprise. No reasons have as yet been given. Undoubtedly the Army has seen very many changes during his tenure as Secretary of State for War. As one of the older generation who spent forty-seven happy years in the old Army, I am not in a position to give an opinion on the effect of these changes.

It is evident from the Press of all countries that the Hore-Belisha bomb has caused a big stir. I served as D.C.I.G.S. under three Secretaries of State for War, Lord Derby, Lord Milner, and Mr. Winston Churchill, and I do not remember one single occasion on which the civilian and military chiefs of the War Office were at variance. That was only my own personal experience. One knows well that the very reverse has occurred from time to time.

When as D.C.I.G.S. under Sir Henry Wilson I attended Cabinet meetings to give the military situation in various theatres of war, I got to know the then members of the War Cabinet under Mr. Lloyd George, and I shall always remember their kindness to me, as I was a comparatively junior officer. I learnt a lot at those meetings. I say quite frankly that I deplore what has happened.

No one can deny that he has brought in many schemes which will improve conditions for the soldier. He took office when it was realised that the Army had been hard hit financially, and he was able to get the money which had for so many years been grudged and he certainly made the best use of it. Whether his drastic removal of senior officers, including the then C.I.G.S., Field-Marshal Sir Cyril Deverell, at a moment's notice was justified, history alone can tell. We of the older generation do not think so. His great fault was, I understand, that he recommended having a British Expeditionary Force. Within a year the late Secretary of State for War was compelled to form one, and has taken considerable credit to himself for having formed it.

I know the War Office better than most people, or used to do so. The machine moves slowly but it moves soundly. It hates being rushed, and I feel that that is what has happened. I think it is a pity in many ways. I hate any form of swopping horses in the midst of a big job. I am sure that the change is necessary or Mr. Chamberlain would not have made it. We can only wish all success to his successor.

STRANGE LEADERS OF STRANGE PEOPLES:

DICTATORS AND MILITARY COMMANDERS OF RUSSIA AND GERMANY

"HAVE THE —— DIVISIONS IMMEDIATELY TRANSFERRED TO FINLAND ——"

Stalin, the U.S.S.R. dictator, in conference with the Chief of the Soviet General Staff in Moscow

MOSCOW HAS RECEIVED ONLY THE MOST MEAGRE NEWS FROM THE FINNISH FRONTS

A typical scene of marching hosts on the Red Square, Moscow, through which columns of tanks have rolled on festival occasions. The end of many of them has been far from heroic

THE PRIME CAUSE OF EUROPEAN UNREST: HERR HITLER COGITATING ON THE FIELD

The Führer is here seen talking to his officers. He has paid several brief visits to various parts of the Front recently

THE UPPER RHINE SECTOR OF THE FRONT DOES NOT PROVE A VERY HOPEFUL PROBLEM

The German High Command have now been in conference since September 2. No "blitzkrieg" has developed itself, for time is required to meet an unexpected situation. General von Brauchitsch finds it bristling with problems

THE HORSE AND THE MULE ARE STILL EMPLOYED BY THE R.A.S.C., AND BEAUTIFULLY SMART ANIMALS THEY ARE

On left—
A spirited horse shows he is undaunted by the hill which he is just about to tackle

On left—
A camouflaged detachment beginning to cross a stream during training

A SPIRITED PAIR SPLASH THEIR WAY THROUGH A SMALL POND—

THE HORSE IS STILL ON THE PAY-ROLL

A PAIR OF R.A.S.C. MULES LEADS THE COLUMN

Although the R.A.S.C. of to-day is almost completely mechanised, it still retains its faith in transport by mules and horses, believing the new version of an old adage "either can go where mechanical transport can't." These pictures of an animal transport company at a demonstration

(Continued below)

NO WONDER THAT THE R.A.S.C. ARE PROUD OF THEIR HORSES

R.A.S.C. HORSES DEMONSTRATE SPEED THROUGH A VERY ROUGH PIECE OF GOING

(Continued from above)

exercise thoroughly justify the faith in four sure feet. The animals—with a little persuasion—made their way through conditions which would have bogged motor vehicles

TRAINING THE CAVALRY IN WAR-TIME

Described by NOEL THOMPSON

(See also previous pages for pictures of Army horses)

A SCENE WITH THE ANIMAL TRANSPORT COMPANY whose work it is to provide horse transport for various sections of the Army

"A GOOD horseman is born, not made" is, as the original of Mr. Chips used to remark to me at school, one of those trite sayings which are only half true. Certainly the War Office believes, and experience has shown that it is right, that an average horseman can be made into a first-class cavalryman by sufficient training.

It is only natural, since so much has been written about the mechanisation of our cavalry regiments in the last few years, that people should begin to believe that there is no cavalry left in the British Army. Or at least during this curious stationary war, to forget the cavalry. In fact, apart from the Royals, the Greys, and the Household Cavalry, there are the yeomanry regiments; and recruiting and training goes on at a higher rate than before the war.

Just as it is not permissible to give figures, so it is unwise to discuss the tactics and uses of cavalry in modern warfare. But it must be remembered that there are other parts of the world besides France. And there are parts of the world where cavalry are going to be invaluable if fighting should break out there and we are called on to face an enemy which has spent half its life in the saddle. As might happen.

And so, while there is a division of opinion, I am on the side of those who consider that further mechanisation will not be carried out. It is more likely that the cavalry will be strengthened. And I may be a lone and unofficial complainant, but I cannot see the value of training a man for months with a horse to mount him, and then transferring him to a mechanised regiment, where he is completely lost at first, as has been done in a number of cases in the past three months.

Now for the training. There are six training depots in the country where officers and ranks are coached. Besides these are the barracks where the men are taught to become officers; in other words, headquarters of the cavalry branch of the Officers' Cadet Training Units. It is from one of the latter that I have just returned after paying a visit.

The major with whom I talked is one of the most famous horsemen in the world and a regular pre-war competitor in international competitions. As such he commands respect. As a man he commands the affection of the 100 young men he has in his charge.

The cavalry cadets are now beginning to catch up with the infantry. Whereas the infantry were all drawn from the ranks after six months' service, two of which must have been as a non-commissioned officer, some of the cavalry cadets have come direct from reception units, such as university O.T.C., yeomanry regiments and individual regiments like the Inns of Court. At the outbreak of war the Inns of Court, to take one example, had three cavalry squadrons, two of which were mechanised. The members of the horse squadron could be recommended at once for training for commissions, and there were those also on the waiting list.

All these have now been to their depots, and about two-thirds have obtained commissions. Of the remainder most are completing their training. Some of these have come direct from the universities, having volunteered before their classes were called up. They have not had to serve in the ranks, as will the successors at the depot. It is sad to report that the Inns of Court, as a separate entity, has now ceased to exist—its work done. In short, available ready material is still being used until the next batches of rankers arrive.

Average age is twenty-five, and age limits are between nineteen and thirty-two at the school I visited. The training course lasts five months, a month longer than in the infantry. And it is a tough life. In five months they have to learn the peace-time equivalent of two years' work, that is eighteen months at Sandhurst and six months with their regiment.

As all the men have ridden before, there are no kindergarten lessons to be given. Mounting guard is dispensed with, in order to save waste of time and energy which might be better spent, and there are no fatigues. The majority of the routine work is carried out by civilians. The care of the horses, for instance, is a civilian job, though the cadets in the course of their five months must each do at least one fortnight of grooming, stabling, harnessing, until they are thoroughly efficient.

Of course, some of the men who have arrived are already experts. In one batch training for a cavalry commission were a man who had experience of the Punjab Light Horse and another who had been in the Rhodesian Mounted Police before they came to England to enlist.

The training is mapped out carefully into periods, condensed into an average of eight a day, and forty-four a week, each of three-quarters of an hour to an hour. Here are the headings as they are laid out on the weekly routine sheet, but not in order of precedence. Equitation, horse management, dismounted drill, physical training, weapon training, anti-gas training, map reading, tactical training, field engineering, organisation and administration, military discipline and law, and finally general education.

Of these the biggest number of "periods" is devoted to tactics, with equitation second. Tactics involves not only theoretical lectures on the combating of various types of enemy and dealing with different kinds of country, but practical battles between troops. Here I should explain that a troop is between twenty-five and thirty-two men; that there are four troops to a squadron, and three squadrons and a headquarters squadron to a regiment.

Physical training is naturally prominent, and I must admit that I cannot decide whether it is the riding or the physical training or the combination of both which makes the men so magnificently fit, with an air of confidence that equals that of the R.A.F., which in its turn is saying a lot. Flat hats are worn instead of the forage caps which I saw the infantry wearing (that is, whenever the quartermaster has them in store, for there seems to be a shortage), and, of course, the white band which is the mark of a cadet.

You will have noticed that the curriculum is divided into twelve subjects, but some of these take little time. For instance, the anti-gas periods are mainly tests in the gas chamber, wearing and fitting of masks, and lectures on the recognition of gases. Similarly the organisation, discipline, law, are put through in as short a period as is possible combined with efficiency.

I was interested to ask why cavalry should be concerned with field engineering. But then the cavalry is so mobile and quick moving that I realised that the officers might easily be faced with repairing bridges or roads, digging trenches or traps, fortifying posts with barbed wire, or making loopholes in a building. And that is just what the cavalry have to learn in case rough country cuts them off from the mechanised support.

In short, they have to be a jack of all trades in modern war. There has been little chance of recent years to test the value of cavalry against tanks, for example. Yet the troops are equipped with anti-tank rifles, awkward to transport on horseback but invaluable in open warfare.

So the cadet goes through his course of four and a half months, for I should mention that the last fortnight is devoted to recapitulation, where necessary. He has not had the same mount all through his training, because change of horse makes for better horsemanship in general. And his mount will not go with him when he takes his commission. A month before he leaves he is asked to name three regiments he would like to join. And here I heard one of the few complaints. He puts them down in order of preference, but he often finds he is sent elsewhere. The other two complaints were minor, the cold of the barracks, and the overcooked food. Both have probably been righted by now.

Then a week before leaving, the cadets are graded A, B, C, and D. Formerly on being passed out and recommended for a commission seniority depended on alphabetical order. That has been changed. The grading means that A equals outstanding. B is better than average, C is average, and D is below average, rather like the mythical mathematical sums of our youth where A could always fill a tank twice as quickly as B, with C and D lurking nowhere.

I imagine that the C and D element is rare, judging by the men I met, including two straight from Cambridge as volunteers, and from the remarks of the C.O. officer material and men for the cavalry are first class, and there is no complaint about the horses.

Finally, I like the story about the cavalry regiment now in France. Four squadrons were resting for a month behind the front line, and to keep them amused each was presented with a piglet, with the condition that a money prize went to the squadron whose animal put on most weight during a given month. The winner put on 90 lb., a prodigious amount. It was then discovered that before the original weigh-in the squadron had taken this pig for much exercise, had dieted it, dosed it with castor oil and pills, and thus gained a clear advantage of 30 lb. which was restored in a few days of gluttony. Clearly the spirit and ingenuity of the cavalry is excellent.

SOUND IN WIND AND LIMB, AND HIS AGE? HIS TEETH SHOULD SHOW THAT The demand for horses for the Army is larger than many people imagine. They are required for the cavalry proper, the training corps, described here by Mr. Thompson, the R.A.S.C., and by the Animal Transport Company

THE HUNTERS of the SEA

The splendid little vessels which keep ceaseless watch and ward — described and illustrated

"THE MODERN DESTROYER NEVER HUNTS ALONE" . . .

Small Groups Work Together. . . .

In this Special Section it has been our grateful task to set forth something of the ships and men which make up the Destroyer arm of the Navy. Theirs is a breezy job; it's a much smaller ship, there's not such a crowd about, and everything's handy and not a mile off. You may have your teeth knocked out in a gale, but there's much to be said for taking the troubles of life and the risks of the sea in a Destroyer

THE DESTROYER NO LONGER HAS ONE

THE DESTROYER "AFRIDI," ONE OF THE TRIBAL CLASS; DESIGNED TO GIVE GREATER GUN AND LESS TORPEDO ARMAMENT

The big Tribal class destroyers have a displacement of 1,870 tons and have no less than eight 4.7 guns in order that the class should be specially strong in this direction. The torpedo equipment was at the same time reduced so that they only carry four torpedo tubes

THIS IS ALL YOU SEE WHEN A DESTROYER IS "TAKING IT GREEN"—THE SLENDER SIGNAL MASTS TOWER ABOVE THE BRIDGE

THE oldest destroyers in the British Fleet at the present time are the nine survivors of the 905-ton S class, fifteen of the 1,090-ton V class, and twenty-five of the 1,100-ton W class. All these are ships designed and laid down during the late war, although some of them were completed after the Armistice, so that technically they are all over age. They mount three or four 4-in. or occasionally 4·7-in. guns, smaller anti-aircraft pieces, and four or six 21-in. torpedo tubes. Their speed was originally 35 knots and 36 knots, but owing to their age they cannot manage it now.

Other survivors of the late war are seven rather larger ships designed to act as leaders of flotillas, round about 1,500 tons, to accommodate the staff, and H.M.S. Whitley *and fourteen other ships which have been converted into escort vessels. They have had their torpedo tubes removed so that they can scarcely be described as destroyers any longer, their speed has been cut down to 25 knots and they have been rearmed to protect merchant ships from attack by submarine, surface raiders, or aircraft. Post-war destroyer construction, after two experimental vessels designed by their builders, started with the A class, all the ships having names beginning with that letter. After that each year's estimates provided for a flotilla of eight units with a rather larger leader, excepting only the C class year (1929) which only provided four ships, which have since been transferred to Canada. For years every effort was made to keep the design as homogeneous as possible, a great advantage in handling, and while the A class was 1,350 tons, with a speed of 35 knots and*

(Continued on left)

(Continued below)

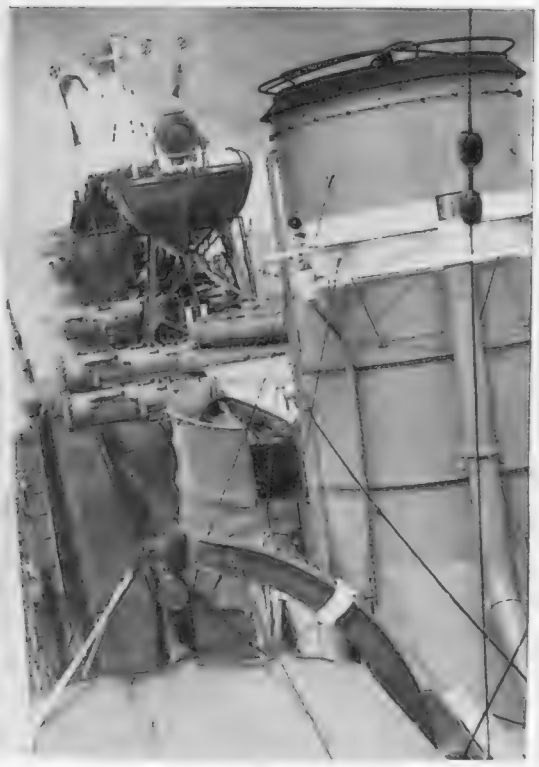
THE EFFECT OF FORE-SHORTENING AT ITS FIRST STAGE — ALL THE DECK DETAIL CLOSING UP, UNTIL FINALLY, IN PICTURE ON RIGHT, YOU SEE ONLY A MAST AND THE BRIDGE

(Continued on right above)

FORM, BUT MANY: *They Vary in Tonnage, Gun Armament, and Torpedo Equipment according to the Duties they have to Perform*

A DESTROYER OF THE G CLASS REVEALS THE MODERN ARRANGEMENT OF BRIDGE AND CONTROL NERVE-CENTRE FORWARD, WITH TWO FUNNELS, SEARCHLIGHT TOWER, AND REAR GUNS WITH FIRE-BLAST APRON AS YOU GO AFT

an armament of four 4·7-in. guns and eight torpedo tubes, the I class was 1,370 tons, with a knot more speed and two more tubes. Minor improvements only were introduced with each type, and the greatest care was taken to save weight to compensate for them. (Continued below)



EVERY KIND OF DUTY COMES TO A DESTROYER—THIS ONE CONVEYED THE KING TO FRANCE RECENTLY. *On left*—DECK TORPEDO TUBES, AND SEARCHLIGHT IN ITS CUP-LIKE TOWER

When the 1935 (I class) estimates were planned it was decided that the destroyer's duties had become so numerous that it was necessary to divide the design into two sections, the one that was still primarily intended to fire torpedoes
(Continued below)

TO RELIEVE THE DESTROYER OF ARDUOUS CONVOY WORK, THIS ESCORT CLASS IS BEING RAPIDLY AUGMENTED. THEY HAVE ONE SMALL FUNNEL AND LESS SPEED

and the other that was primarily a gun platform. So the sixteen ships of the Tribal class were started—1,870 tons, 36½ knots, eight 4.7-in. guns but only four torpedo tubes. In the following year it was finally decided to sacrifice homogeneity and build bigger ships like other navies. The J and K classes were 1,690 tons with a speed of 36 knots and an armament of six 4.7-in. guns and ten tubes. In the L and M classes an extra half knot of speed meant the sacrifice of two tubes in spite of the fact that the displacement was pushed up to 1,920 tons

ONE OF A BAND OF HUNTERS ON THE DARK WATERS OF THE NORTH SEA

On left—CUTTING THE ROLLING WAVES ON A SHALLOW PATCH OF THE NORTH SEA. *A camera study by Charles Brown*

THE DESTROYERS KEEP WATCH ON THE WINTRY SEAS

(Special Drawing and Camera Studies)

This drawing by Montague Dawson gives some idea of the kind of sea one encounters between Scotland and Norway, the northern gateway of the North Sea. The coldness of sky and sea are accentuated as the short day fades into night

THE FOAMING WAKE FROM A QUIVERING DESTROYER HURTLING THROUGH THE SEAS FLAT OUT

Above—A DESTROYER PUSHING ITS WAY OVER A MOONLIT SEA. *On right*—A DESTROYER ROLLING AS SHE ALTERS COURSE—AS SEEN FROM THE BRIDGE

THE LITTLE VESSELS MAKE BIG VI

DESTROYER CAPTAIN ON THE BRIDGE ON A BRIGHT CALM DAY

The Ships, and the Them—Specially De Sphere" by JON

IN the first German war destroyers were called the handmaidens of the Fleet. Now that in this war there is no likelihood of Fleet action on a large scale the service of all but a tiny fraction of them is directly to the nation itself. With their lean shapes and high speed, destroyers are usually associated in the layman's eyes with dashing exploits. Except on the rarest occasions, however, there is nothing spectacular about their work to-day. Their presence is only noticed if for one brief moment they have failed or if they have met with mishap.

In this war, for destroyers the word "enemy" means U-boat. As the submarine, notwithstanding the initial success obtained from aerial mine-laying—a success mainly due to the element of surprise—carries the two weapons, the torpedo and the mine, which alone can defeat the Allies, it is the destroyers and not the Grand Fleet who could lose and who will win the war.

The destroyer to-day is first and foremost a hunter, and does not wait for the U-boat to come to her. From bases in the far north to bases in the extreme west small groups of destroyers leave at all hours, for the modern destroyer never hunts alone if this can be avoided. The areas for patrol are not taken at random but destroyers concentrate on the shipping focal points which attract the U-boat and on those gaps beyond our minefields through which the U-boat must pass on its homeward or outward journey. The most worthwhile prize of all is a U-boat caught before she has had a chance to reach the open sea

While one patrol is out its opposite half will be officially at rest in harbour. Rest, however, is purely a relative word, and unless the ship is due for a routine refit, steam will be maintained and many of the personnel will be engaged in refuelling and revictualling and carrying out temporary repairs to the damage caused by sea and strain. A few fortunates may be on leave at a canteen within the easiest reach of the destroyer. A short hour or so after arrival at the port, she will be ready to proceed again.

At any time, there may come a report from a reconnaissance aircraft, or the S O S of a torpedoed merchant ship, a message from an alert coast observer, that will set the destroyer's siren blowing and the lucky ones scuttling back to the ship from the canteen. Almost before the stateliest veteran is across the brow from the jetty the destroyer will be under way, forming up with her consorts and rushing at maximum speed to the scene of the report where the hunt will begin, her mechanical ears alert and her depth charges ready in their throwers.

The work may sound exciting, but it is in fact monotonous and disappointing. Thousands of miles can be steamed in the foulest weather, to be endured in the stale discomfort of a battened-down ship or in frozen misery on an exposed deck, without even a trace of the enemy being found. There will be many false alarms and fruitless attacks for every genuine one, and a dozen failures for every sinking. Every patch of oil does not denote the grave of a submarine, and even when a U-boat is found two days of methodical attacks may in the end result in her escape.

Dash is still the main requirement of a "boat" and its captain, but almost as important in both is the ability to endure. Patience and cool-headedness, not reckless daring, are the attributes of the modern destroyer officer. The courage demanded is to know that you are perhaps observed by an unseen, sleepless, and highly-skilled enemy inveterately waiting his chance to strike.

Even more so is this true of the destroyers whose first task is not to hunt but to protect. Wherever there are large warships or wherever there are convoys of merchant ships there is likely to be a U-boat. Although the main effort of the destroyer is no longer the passive one of defending the Fleet, yet large and heavy units such as battleships and aircraft-carriers must be screened. The sinking of the *Courageous* has revealed how heavy is

A DESTROYER POURING OUT A SMOKE SCREEN

Various methods are employed in creating the smoke screen, which is one of the established weapons of the destroyer

WHICH CTORIES POSSIBLE

Officers Who Direct scribed for "The ATHAN PITCH

CAPTAIN DRINKS HOT COCOA TO KEEP OUT THE COLD

the responsibility for men and material that must lie on the shoulders of a young destroyer captain.

The ship he and his fellows escort cannot defend itself, and it is only complete exhaustion that can close a destroyer captain's eyes until his vast and costly consort is safe back in harbour. Like a dog out for a walk with his master, he must steam five or six miles to the consort's one, searching, listening, watching, ready for a sudden attack from any quarter. Planes from the ship he protects may destroy a squadron of the enemy or bring back vital strategic information. No matter who gains renown, it must not be forgotten that were it not for the destroyers nothing could have been done.

Perhaps more onerous still is the responsibility for a convoy. Warships, however helpless they may be, have always speed and construction to protect them against the torpedo, but the slow-moving convoy of merchant shipping is as helpless as a heavily laden caravan against an attack of marauding Bedouins. Moreover, the convoy may stretch for miles, and lack of experience or shortage of the necessary apparatus add to the difficulties of station keeping.

The destroyers have not only to continue their watch for the U-boat up and down the whole length of the convoy; they must now also search the skies. Aircraft have already attacked convoys, only to be beaten off by the vigilance and fire of the escorting destroyers.

Yet one more task and the most thankless of all. The senior officer of the escorting destroyers must see to it that the convoy follows the allotted safe channel and that new arrivals from ports en route take up position correctly and that ships leaving before the final port are diverted at the proper time and place. In flat calm weather and with the maximum visibility, the difficulties would be considerable, but more often than not the ponderous train of ships must be controlled, adjusted, directed and re-ordered in rough weather and at night, off a coast where navigation lights have been extinguished.

Were the difficulties more generally appreciated the arrival of every convoy in port (and convoys arrive almost daily) would be greeted as a major naval victory. How destroyers can control a group of merchant ships, all with their own idiosyncrasies, some unable to read signals, others perhaps with no more than elementary knowledge of English, some with a tendency to go fast, others with their steering a little out of order—all these and other minor difficulties which are of no importance in peace but which can endanger both themselves and others in convoy—how the few destroyers can bring order out of this passes all comprehension. If you ask a destroyer captain, he himself will reply with a cryptic grin as he sips his sherry: "An ingenious arrangement of mirrors, old man"—then before you have time to press him further he will be bundling you over the side, as he must turn about and take the next convoy to his base, where he may "rest" for perhaps a day before he begins the next outward and homeward trip.

It is the convoy destroyer which ensures the transport of the British Expeditionary Force and which will make it possible for our army to fight in the field. It is a destroyer that takes or escorts important personages; it is a destroyer that rushes out to help back to harbour a battered comrade or a limping submarine; it is a destroyer that stands by while merchant ships are salvaged; they are destroyers that rescue the crews and the wrecks of lost reconnaissance machines both of friend and foe; destroyers that pick up enemy prisoners from the air or from the shattered U-boats; who stand by in spite of still present danger to rescue comrades from the sinking ship while their consorts hunt relentlessly to avenge the blow; they are destroyers that nose into the farthest waters of the Bight looking vainly but hopefully for enemy forces to engage and observing the whole time information which, pieced together with other reports, builds up for the high command the complete picture essential in the arrangement of strategic plans.

TERRIERS OF THE FLEET GOING OUT IN SEARCH OF TROUBLE

The destroyer is accustomed to setting out in most weathers; but there is a limit, and sometimes the order will go out, "withdraw destroyers"

GROWTH OF THE DESTROYER

To the Latest Types with Director Fire Control

WRITING in 1898, Kipling described the destroyers as "the choosers of the slain," and, in the days when 6,000 horse-power was required to drive the hull at 30 knots, spoke of the terrific power necessary. That power has now gone up to 44,000 for the 36 knots of the Tribal class whose displacement is 1,850 tons against the 400 tons of Kipling's 30-knotters.

It is doubtful whether any type has developed so rapidly as the destroyer, which was introduced as something entirely novel in the year 1893. So rapidly has she developed that her full name of "torpedo boat destroyer" is now seldom used. When she was introduced she was designed to run down and destroy the small torpedo boats which had been built in large numbers on the Continent and was merely an enlarged torpedo boat herself. When she was introduced the contemporary British torpedo boats were 112 tons, with a speed of 21 knots and an armament of three 3-pounder guns and three 14-in. torpedo tubes.

The first destroyers had a displacement of 275 tons, a speed of 26 knots and an armament of one 12-pounder and five 6-pounder guns, backed by two 18-in. torpedo tubes. They were built on the principles of a torpedo boat, kept as low in the water as possible, with a curved "turtle back" deck forward in order to make as small a target as could be contrived, were built of the thinnest but finest mild steel and got their power with triple expansion engines whose vibration was terrific, and coal-fired boilers which made the boiler rooms an inferno.

In bad weather they were expected to take shelter, but in rather less than ten years the speed had been worked up to 33 knots with the pioneer turbine engines. When one of the first turbine craft, H.M.S. *Cobra*, broke in two in the North Sea the Admiralty worked for seaworthiness instead of lightness, reducing the speed by 8 knots to begin with, and although the speed has since been more than recovered, seaworthiness is still the prime factor, for the destroyer has to face anything.

During the Russo-Japanese War of 1904–5 the Japanese used their destroyer fleet, which was a very fine one built entirely in British yards, as torpedo boats and attacked the Russian battleships again and again. That caused many navies to accent the torpedo side at the expense of the gunnery, the German Navy in particular always describing their destroyers as "large torpedo boats" and giving them a very small gun armament. The British, which had reduced the number of torpedo tubes from three to two after the first one or two ships had been built, stuck to that number, but gave the destroyers a far better gun armament of 4-in. quick-firers behind light shields.

The late war with Germany gave the destroyer any number of jobs to do, so that she was frequently referred to in print as "The Handmaiden of the Navy." The men who took her to sea on these various jobs were not so poetic in the name that they applied to her, but for all its discomfort and hardship destroyer work is one of the most popular jobs in the Service and the destroyer personnel is a wonderful example of *esprit de corps* and united effort.

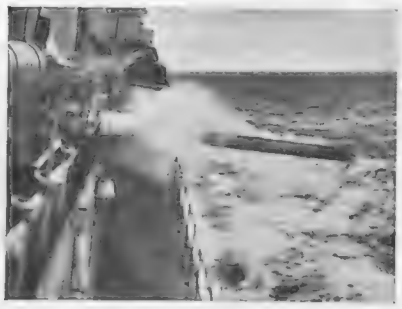
These innumerable duties demand seaworthiness above all things and that has been made a great point in the design of all modern British destroyers. To make a small target was exceedingly desirable, but the price paid in seaworthiness was too high and the ships built during the last thirty years have long high forecastles with the side plating curved out in a big flare. This provides very much better accommodation for the men, which is most important in keeping them off the sick list.

The late war saw a remarkable development in the design of the British destroyer and it is not at all improbable that it will be the same in this war. As she is developed at the present time each destroyer costs £500,000. Every effort will certainly be made to delegate as many of her duties as possible to smaller and less costly vessels, but although this may afford some relief it is probable that other duties will be found to replace them and the destroyer will continue to be given harder and more varied work than any other type of fighting ship.

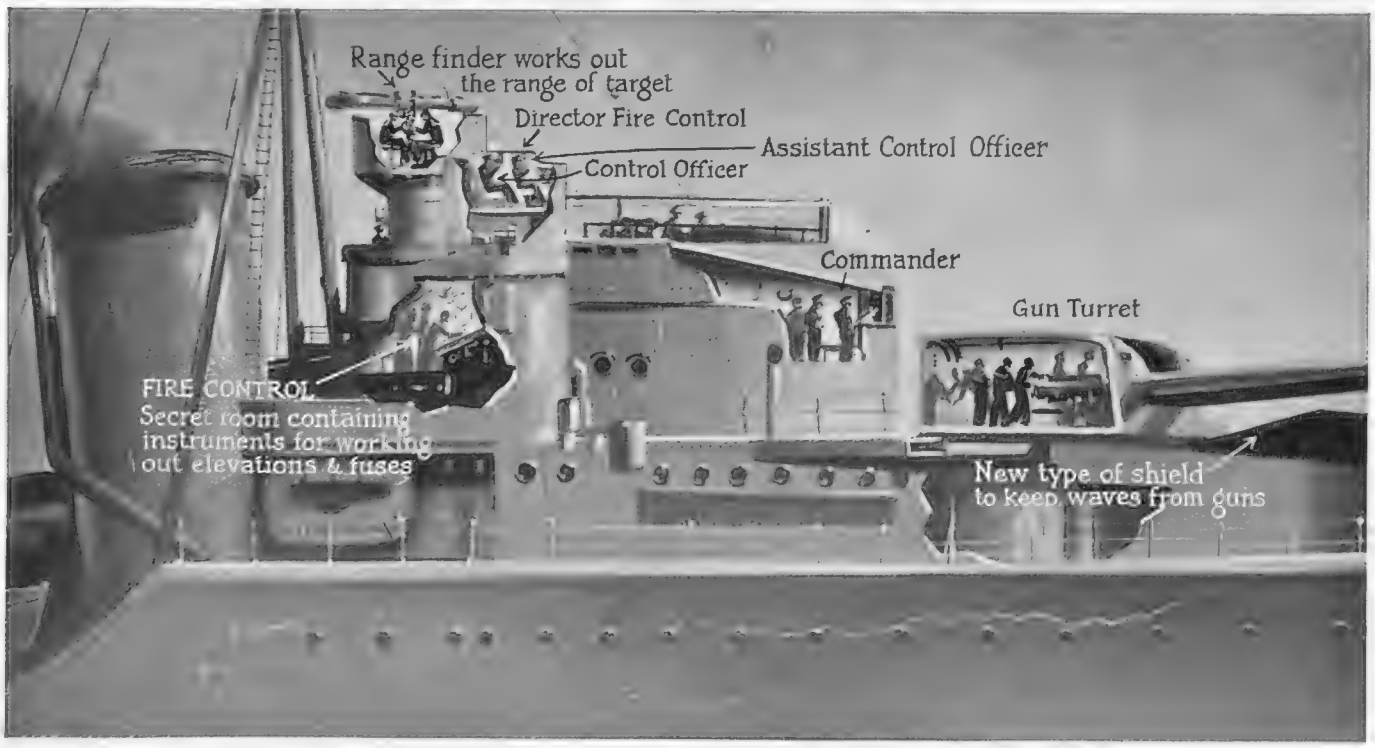
F. B.

A DESTROYER IS NOT AS OTHER SHIPS—ITS BOW SECTION, FOR INSTANCE, HAS ITS OWN CHARACTERISTICS

The bows are flared externally, permitting the ships to be driven at high speed through head seas and keeping the guns reasonably clear of water; the internal arrangements are generally as shown above. These quarters are a great improvement on the old



The gun and the torpedo have struggled for ascendancy from time to time in the construction of destroyers, and peace has been obtained by dividing the types so that some carry a large number of guns and others a more generous supply of torpedo tubes



THE GUNS IN THE LATER DESTROYERS ARE NOW EQUIPPED WITH FIRE CONTROL PLACED HIGH UP AS SHOWN HERE

The range records are transmitted mechanically to the secret office, where the fire control table is fixed. Here the staff work out the speed course of their own ship as well as that of the target; also in this room is plotted information to fix the elevation of the guns, and the deflection, and also which guns have been and are ready to be fired

THE WHITE BAND of the OFFICERS of TO-MORROW

A PLATOON OF AN OFFICERS' CADET TRAINING CORPS UNIT MARCHING WITH ARMS

By the beginning of this year, the first officers to have risen from the ranks and to have been intensively trained in the newly-formed Officers' Cadet Training Units (O.C.T.U.) were to receive their commissions and to be appointed to their regiments. Now the War Office and the Army can see how the scheme is working

NOT SO EASY TO EVERYONE — MAP READING BEING EXPOUNDED TO A CLASS

The reading of a landscape target or a map does not come easily to every cadet, though to others it seems simplicity itself

ON THE MAT WITH THE BREN GUN

The militiaman, pre-war territorial, and the volunteer, must have served six months with his regiment. Each man is carefully watched and impressed with the fact that "it is his duty to become a good officer"—if the opportunity occurs. Then selected men are sent to the O.C.T.U. when vacancies occur

PRIVATE STUDY OCCUPIES SEVERAL HOURS — YOUR KIT IS ALWAYS WITH YOU

In four months of concentrated work the cadets must learn the equivalent of a full eighteen months' work at Sandhurst

LEARNING TO IDENTIFY TOPOGRAPHICAL FEATURES ON A LANDSCAPE TARGET

In the last war commissions went to men of "officer or gentleman class." That is to say, regular army officers, youngsters with (possibly) Officers' Training Corps experience at school or university—the officer who rose from the ranks was a rarity. In the new army all commissions, with the exception of the field or emergency commissions, are granted only to men who have done their service in the ranks. Hence the O.C.T.U. of the present war

A SAND-TABLE LECTURE FURTHER HELPS IN THE UNDERSTANDING OF THE MILITARY VALUES OF TERRAIN

GENERAL VIEW: Part of the giant organisation of the Military Censorship, a body of 3,050 people which deals with the mail leaving this country. Here are trade experts dealing with letters from business houses intended for abroad

UP TO EVERY TRICK: A stamp on an innocent-looking postcard has been carefully raised to show a short message pencilled underneath. The would-be censorship dodger will find it impossible to evade these clever investigators

LIBRARY WORK: Books in every known language are at the service of the censors and many long hours of research are sometimes necessary when dealing with a letter in a strange tongue

SCRUTINISING PARCELS: All the packing material protecting goods is subjected to a searching investigation. The materials used for packing must also conform to certain requirements

WAR-TIME CENSORSHIP

There are in this country two separate censorship organisations. The first is the Press and Censorship Bureau, a civil organisation existing for the guidance of the Press. The second and bigger part of the censorship is a military organisation, and this is the net which helps to catch the spies, prevents the indiscreet from giving away essential secrets in their letters, which stops the unscrupulous from attempting to trade with the enemy through neutrals. During the first ten weeks of censorship, information assisting in the capture of nearly £6,000,000 worth of enemy cargoes and contraband has been supplied to the Ministry of Economic Warfare. All sections of the censorship have at their disposal a staff of chemists who possess solutions and devices which expose every trick ink known to science.

The World of Books—By Vernon Fane

THREE NOTABLE BIOGRAPHIES

Pen Portraits of the Great

THIS week is in the main one of biographies, and of these the most distinguished comes from an author famous throughout Canada. Mrs. Laura Goodman Salverson is descended from the last of the Viking nobles. Her parents were Icelanders who emigrated to Canada over fifty years ago, and there moved from place to place in search of work and security. Their home knew constant poverty and constant hardship, and the author was the only one of numerous brothers and sisters to survive, though she herself remained for years dangerously frail.

CONFESSIONS OF AN IMMIGRANT'S DAUGHTER (Faber and Faber. 8s. 6d.) is her own story of these vicissitudes and of the spirit that brought her through them to her position to-day. The struggle to live would in itself have been enough for most people's powers of endurance. With no money, except what she earned by work that would seem excessive even under conditions of penal servitude, suffering constantly from an overstrained heart, and sometimes from hunger, with so few opportunities for study that the task must often have appeared hopeless, Mrs. Salverson began to write, and to write well.

What was as amazing as her courage through these years were her high spirits. She was observant and curious and interested in everything that went on around her, but she was also gay, as gay as her frequently tragic circumstances would allow. She liked music and singing and the company of friends. She was earnest and determined, but she was no self-centred contemplative, and her interest in such frivolities as clothes was as lively as any pretty girl's.

This is the biography of a woman of immense spirit and ardour. To read it is a very real and moving experience.

I find THE TESTAMENT OF FRIENDSHIP (Macmillan. 10s. 6d.) an extremely difficult book to review. This is the biography of the late Winifred Holtby by her closest friend, Miss Vera Brittain. Miss Brittain takes as her model Mrs. Gaskell's *Life of Charlotte Brontë*, and in her prologue offers the same apology.

"The difficulty," wrote Mrs. Gaskell, "was how I could show what a noble, true, and tender woman Charlotte Brontë really was, without mingling up with her life too much of the personal history of her nearest and most intimate friends. After much consideration of this point, I came to the resolution of writing truly if I wrote at all; of withholding nothing, though some things, from their very nature, could not be spoken of so fully as others."

The two cases, however, are not analagous, since Miss Brittain's friendship with Winifred Holtby was as close, and consequently as loyal as the friendship between two women can be, and indeed, in this respect the writer makes her first point. Miss Brittain has recognised the difficulties of writing about someone so much loved and so familiar to her, and the first one apparent to the reader is the level intensity of the writing which, although understandable in this case, is a little wearing. Her passionate loyalty leads her to write of her subject as a saint, "with the sensitive social conscience of sainthood and its noble, deplorable exploitability."

Of Winifred Holtby's work, her two novels, *Mandoa Mandoa* and *South Riding*, will be best remembered, at least by the general public, but a closer circle will remember her for her vivid journalism, her poems, her speeches and the instant warm-hearted response to other people's quandaries.

It is always gratifying to find one's judgments borne out by the great, and even more satisfactory when they coincide. I still remember, after four years, the happy glow I felt when Mrs. Dorothy Parker and I said the same thing at the same moment. The fact that it was one of that lady's few un-witty remarks has no place in this record.

In this instance the corroboration comes from the pen of Rudyard Kipling, in whose opinion, as in mine, a certain novel of Mr. Gilbert Frankau's was "a beast," and did little towards his reputation. Kipling was a friendly critic of Mr. Frankau's work and the very fact that we are able to read this solitary line of disapproval is typical of the disarming candour of SELF-PORTRAIT (Hutchinson. 10s. 6d.), the book which Mr. Frankau has called the novel of his own life.

Very few popular novelists know their stuff and do it—he will pardon the colloquialism—as well as Mr. Frankau, and it is both amusing and suitable that he should have chosen his best medium for his own life story, which he might very well have decided to treat in rhymed couplets. My only quarrel with the word "novel" in this connection is that it implies fiction, and I understand this to be a book of fact.

In his youth Mr. Frankau made the best of two or possibly three worlds. His mother was the famous novelist, Frank Danby, his father a distinguished merchant of cigars. The young man, with a lucky aptitude for languages, was at home in Paris, in Hamburg, in Havana and, later, in Rome. 1914 found him, after his father's death, the head of a cigar business himself, writing, but not very much, and by the end of the year a very active soldier. For ten months towards the end of the war he was in Rome, engaged on work which he describes as his "single-handed effort to educate the Italian civil population by films, by press propaganda, and by personal appearances complete with artillery sword and white gloves."

After the war a man suffering from severe shell shock settled down to write, and the era of serials and best-sellers, with an interlude of editorship, began. The gusto with which Mr. Frankau relates his happy moments and his triumphs is the same which enlivens his descriptions of reverses and sorrows. There is nothing tepid here, whether he is writing of Bernard Shaw in Spain or Philip Guedalla in full flight. I suppose that Mr. Frankau must have had the epithet "readable" applied with varying degrees of enthusiasm to all his books for the last twenty years or so, but I have the temerity to use it again. His autobiography has the pace, and the interest and that prime essential, a really good story, which is typical of a first-rate Frankau.

The writings of Miss Gertrude Stein are caviare to the general, and that is all right, but they have always been caviare to the grown-up general, and that was all right too, but now she has written a book which might be for children too, and is that all right?—Well, yes, it might be. It might just possibly be, and I must remember to find a child somewhere and show him this book. The publishers say it is reassuring.

The book is called THE WORLD IS ROUND (Batsford. 7s. 6d.), and it is about a little girl called Rose, and it is illustrated by Sir Francis Rose. And a rose is a rose, is a rose, is a rose, as Miss Stein so happily put it. This little girl, who had a cousin called Willy and a dog called Love (as anyone might), has the excellent notion of pushing a blue chair up a mountain, and once there to sit on it. Not many children have such quaint ideas, and probably nobody but Miss Stein's Rose would get away with it if they had.

For Rose reaches the top of her mountain, and there she sits and sings, as is her amiable wont. She sings:—

"I am Rose, and my eyes are blue;
I am Rose, and who are you?
I am Rose, and when I sing
I am Rose like anything."

And a great deal more. And soon after the book ends. It has a rose-coloured cover.

After the last war, one of the many anomalies that remained was that part of a once great country in which the people were forced to learn a new language, vow allegiance to their hereditary enemy and forget hundreds of years of tradition and history. In that part of the Austrian Tyrol which became Italian the difficulties were vast and the resentment correspondingly great. Some had the vision to see beyond the immediate problem, but many nursed their rebellion long after it might have died a natural death.

It is of this beautiful and perplexing corner of Europe that Miss L. F. Loveday Prior's new novel, THE VALLEY OF EXILE (John Murray. 8s. 6d.), treats. The Graf von Feilmar, or the Conte di Felmaro under the newer regime, returns after the war to his own estate, with the intention of spending the rest of his life there, managing his lands and continuing in his role of kindly mentor to the village people.

With him comes his son, in whom the Graf's pride is replaced by ambition, and who dreams of restoring the Habsburg dynasty and of revolting against Italian rule. It is the period just before Italy's Abyssinian campaign, and the young men of the valley have, as they feel, a fresh injustice to bear, that of being conscripted in the Italian army to take part in this new war.

Throughout the novel, which is chiefly remarkable for its faithful pictorial record of the countryside itself, rather than for any psychological subtleties, the Graf and his son are contrasted as the old spirit and the new, and their actions are designed to emphasise this difference which ends with the final capitulation of the young man to his father's wiser and more gracious ways.

I question a little whether there is not something too ideal in this arrangement. After all, the young man has, but for a matter of thirty years odd, the same weight of tradition behind him as his father, and there is a suspicion of facility in the manner of his conversion to the old *mœurs* which, after all, he must have known since earliest childhood.

However, Miss Prior makes a very pleasant business of it all, and has some delightful passages describing the local dances and songs. She writes as people do who know and love a country and, loving it, are moved by its problems.

THE STUDY OF DRAMATIC ART CARRIES ON:

A Vision of Keen Enthusiasm at the R.A.D.A.

ONE OF THE STAFF OF PRODUCERS AT THE ACADEMY—MR. JOHN WISE (PRODUCER OF "FROLIC WIND," ETC.) SHOWS HOW TO EMPHASISE A SPEECH

The stage is not experiencing a shortage of recruits as a result of the war. Unlike many institutions, the Royal Academy of Dramatic Art is carrying on with vigour and enthusiasm, although with reduced numbers. The principal, Sir Kenneth Barnes, had asked the students and their parents early in August whether they would be prepared to continue their training should hostilities commence. One-third said that they would continue whatever happened. With this reassurance it was decided not to close down

A REHEARSAL IN PROGRESS AT THE ACADEMY—MISS ETHEL CARRINGTON, SEATED IN BACKGROUND, WAS PRODUCING THE PLAY UNDER REHEARSAL

STUDENTS MAKING UP FOR ONE OF THEIR OWN PRODUCTIONS AT THE ACADEMY—"OTHELLO" IN THIS CASE

Plays are being produced in the sub-basement of the building which is fitted up as a theatre for 180 people. Since the war, however, it has served as an air-raid shelter as well, and now, any day, one can see young Ainleys and aspiring Irvings as well as budding Tempests making up and rehearsing under the expert guidance of experienced producers and veterans of the stage. Pupils have to carry their gas masks with them wherever they go in the building. The age-old tradition of the stage, "The show must go on, so 'On with the show'," holds good for these, the future stars of the theatre

THE ACADEMY HAS ITS OWN REFECTORY, TO WHICH THE YOUNG ASPIRANTS TO FAME PROCEED AT THE INTERVALS

Above and centre—FELLOW ACTORS AND ACTRESSES FORM THE CRITICS OF THE SHOWS PRODUCED

Outside audiences will not be allowed to see the plays as they used to do, but plays, both classic and modern, are being produced, as this forms a major part of the dramatic training

ENTHUSIASM IS THE NOTE OF THE ACADEMY—ABILITY IS TESTED BEFORE AN APPLICANT IS ADMITTED

VIGNETTES of LONDON'S WAR-TIME LIFE . . .

HIDDEN AWAY IN A STRONG PLACE IN THE TATE GALLERY ARE A NUMBER OF DRAWINGS AND PAINTINGS NOT EVACUATED

At the outbreak of war all the important pictures in the gallery were transferred to a place of safety, but others were left in the strong room seen above

THE PICTURES WENT, BUT THE STATUARY REMAINED AT THE NATIONAL GALLERY OF BRITISH ART, MILLBANK

The basement houses a medley of statues and busts which once figured elegantly on pedestals in the galleries above. Some of the figures appear to feel their position acutely. *Below*—Under the meat control Mr. Hugh Wright, a Chelmsford butcher, becomes Britain's "No. 1" butcher. He was the chief agent for meat in the Great War and is seen with Mr. D. M. Brown, Scotland's chief meat agent

A PEER'S UNCLE BECOMES A THEATRE MANAGER

The Hon. David Erskine, twenty-two years old, at present an officer cadet "Somewhere in England," son of the late Earl of Rosslyn and uncle to the present earl, has joined Maxwell Coburn in theatre management, and their first joint presentation was to be that of *The Bare Idea* at the Comedy Theatre. Mr. Erskine (left) is seen going over the script with Mr. Maxwell Coburn

THE JANUARY SALES CRUSH HAS BEEN IN STRONG EVIDENCE FOR THE PAST FORTNIGHT

In particular the crush was greatest at Revillons which were selling off their London stock. *On left*—Sir Kenneth Clark conducting the musicians who were playing Haydn's Toy Symphony actually on toy instruments. The performance was enjoyed by players and public at the National Gallery. In the centre, laughing heartily, is seen Miss Myra Hess. On the platform is Moiseiwitsch

THE WAR IN THE AIR

A Review of the Air Struggle—September 3 to December 31, 1939

By C. G. GREY

NOW that the year 1939, of unpleasant memory, has passed without anything definitely blowing up since the last issue of THE SPHERE appeared, we may perhaps take a look back and size up what, if anything, we have learned in four months of war. I did not dare to consider the air work of the year completed before the year itself was finished, because people have an unpleasant habit of springing surprises on one. Judging by the number of R.A.F. aeroplanes I saw in the air on the morning of New Year's Day in the part of England where I was staying there might have been mass raids going on anywhere.

Obviously, the most important fact about our four months of war is that the threatened *blitzkrieg* did not take place. The delay has given the R.A.F. the chance of consolidating its organisation and training its personnel in real air war a few at a time, and of vastly increasing supplies of war material of all sorts.

Probably the most noteworthy fact about the air operations on both sides, apart from the fact that neither side has bombed land targets on the other side, is the long range and accuracy of the reconnaissance flying. We know that our people have been over Berlin and Hamburg and a number of other important German cities. Considering the number of machines that have been out on these journeys and the antiquity of some of the types, our losses have been surprisingly small. Which does not alter the fact that some of the types ought never to have been sent on such journeys, and that small as the losses were, certain of them ought not to have happened at all.

The fact that so many of our landplanes, both the big bombers and comparatively small machines, have flown so many thousands of miles over open sea without being forced to alight by engine trouble is, apart from its evidence of the courage of our aviators, an encouraging proof of the technical achievements of the British aero-motor industry.

Another satisfactory development which has been disclosed by all these long-distance reconnaissances is the excellence of our navigation schools—and apparently of those in Germany. Before the war the air lines of all the different nations used to go from A to B and on to the rest of the letters of the alphabet with remarkable accuracy and punctuality, but they were helped by radio direction-finding and ground signals of all sorts. The war pilot, on the other hand, only gets one form of ground signal, that is anti-aircraft shells, to tell him when he is crossing over certain towns or has reached his objective.

The interesting theory has been set forth that the Germans have avoided bombing this country so that we should have no excuse for bombing their industrial centres, whence their munitions are derived, until they have built up not only a goodly supply of reserve munitions but have also created reserve centres of output in Austria and Poland. As a matter of fact, they are not likely to get much from either country or from Bohemia.

The Bohemians had quite a nice little aircraft industry when they were the republic of Czecho-slovakia, and Bohemian mechanics are very good. The Slovaks are not. They are much more agriculturists and foresters and so forth. The Poles also made some nice aeroplanes, especially light aeroplanes. But the Poles are not by nature a mechanical people any more than the Russians are. Out of so many millions one could obviously extract a certain number of born mechanics, but they are not naturally given that way, and the farther east one goes the less mechanical the people are by nature.

That is why Russian aeroplanes are so shockingly bad, and why all the efforts of the officials of the Soviet Government, from the time when they were appointed till they have been liquidated, to produce mechanical objects, aeroplanes, tractors, motor-cars or railway stock, have been such lamentable failures. And that, for our consolation, is one reason why, although Germany is wide open to trade with the east, she will never get worth-while supplies of the mechanisms of war from that direction.

Another thing that we have learned during these four months of standstill war is that a ship is remarkably hard to hit from the air. We have claimed a number of direct hits on German warships and the Germans have claimed a few more direct hits on British warships, but, so far as has been proved, neither side has yet sunk a ship by air action.

As a matter of fact, neither side has tried seriously to sink a sizeable warship by air action. There is always the possibility that one very big bomb, if it hit a first-class cruiser in the right spot, might blow it up, just as two of our best British battleships in the Battle of Jutland were sunk by German shells which, just by chance, hit a vital spot at a vital moment, and blew up the magazines. But people of all nations who have considered seriously the sinking of warships by air action have never thought of the single bomb as the orthodox method of destroying a ship. Their idea has always been a mass attack by a large number of aeroplanes.

First of all, a machine-gun attack to clear the decks of the crews of anti-aircraft guns and secondary armament, accompanied perhaps by dive-bombers sprinkling small bombs on to the ship in the hope of knocking anti-aircraft guns overboard or jamming something that really mattered or damaging the fire control or something of that sort. Then perhaps there might be an attack by bigger bombers just to keep the crew busy, and there obviously should be a smoke screen, laid about deck level by a few very fast machines which would be hard to hit, and then there would be an attack by formations of torpedo craft which would aim their torpedoes by the position of the masts sticking out of the smoke-screen. And as one can buy a whole fleet of bombers and fighters for the price of one cruiser, let alone a first-class battleship, the fact is fairly obvious that neither air force has yet tried seriously to sink any of the big ships of the other side.

Possibly the reason is that neither side has been able to discover the whereabouts of the big ships of the other. Probably when our people go looking for the Germans at Wilhelmshaven they are, in fact, somewhere out in the Baltic, and equally probably when the German reconnaissance aircraft go hunting around Scapa Flow, the British big ships may be somewhere in mid-Atlantic, or down the coast of Africa or South America, if we may judge by the reports from Cape Town or Rio de Janeiro.

The greatest novelty, which might possibly be the undisclosed weapon to which Herr Hitler referred very early in the war, is the magnetic mine laid by aircraft. Naval gentlemen who know far more about the subject than I do have assured me that the story of dropping mines by parachute is nonsense, because in the first place they could not be dropped with enough accuracy, and secondly there is no reason why a mine should not just be dropped like a bomb.

I doubt whether mines, magnetic or otherwise, have been laid with an accuracy greater than 100 yards or so, and probably half a mile is good enough, so long as they are somewhere in the channels which are used by shipping. And except when they are coming into a harbour or making up to a quay, or avoiding shoals, ships never seem to mind within a few miles where they are. I have never been able to see the reason for using parachutes at all. A parachute which was big enough to carry the weight of a mine which would hold enough high explosive to blow up a ship would be such a colossal affair that the cost and inconvenience of handling it would cause it to compare badly with carrying the mines in good big seaplanes which could sit down on the water and put the mines just where they were considered to be most useful.

Another odd feature of this war are the "security patrols," as they are called. Why a lot of bombers should be sent over enemy seaplane bases to be attacked by enemy fighters and by enemy Archie guns, and should not be allowed to bomb the enemy bases over which they are flying, is not only beyond the understanding of the ordinary civilian, no matter how much he may know about aviation, but is also beyond the comprehension of a number of people in the R.A.F. itself. One would imagine that the obvious thing to do would be to bomb the enemy's air bases.

Presumably the explanation is that if we started bombing the German seaplane bases they would retaliate by bombing ours. We should then go and bomb their aerodromes, and they would come and bomb ours. Then we should go and bomb their munition-producing areas, and they would come and bomb ours. After which bombing would be confined entirely to women and children.

The single-seat and two-seat fighters—interceptors as we call them, pursuit ships in America, *appareils de chasse* in France, and *jägdflugzeugen* in Germany—have had plenty of practice in all belligerent countries. The comparatively few bombers on each side which have flown over enemy territory have been intercepted and chased by so many defensive fighters that the wonder is that any of them returned.

In some of the bomber versus fighter affairs we have discovered that a four-gun power-driven turret in the tail of a bomber is well able to tackle a four-gun chaser. We have also discovered that our eight-gun single-seat fighters are more than a match for the four-gun German fighters. So far I have not heard anything about an encounter between the new twin-motor two-seat Messerschmitt fighters, or interceptors, and any of our eight-gun single-seat fighters. The Messerschmitt ought to be faster, and as it carries four machine-guns and two cannons (23 mm. bore) it would theoretically be the more powerfully armed, but it would certainly not be so manœuvrable as are our Vickers' Supermarine Spitfires or the Hawker Hurricanes. We still have to see what the twin-motor fighters are worth.

At last we may be quite sure that our output of aeroplanes and aero-motors and of all the instruments that are necessary for armament in air warfare is considerably ahead of that of Germany. In October, 1938, when I was in Germany and was taken round the latest of all German factories, the Heinkel works at Oranienburg, I was convinced that admirable as was their organisation, their output was certainly no greater than was our own. Naturally nobody outside our own Air Ministry, and possibly a very few people in our aircraft trade, had any idea of the exact output of the British aircraft industry, so I could only judge by circumstantial evidence, but I am still pretty sure that the output of the British aircraft industry a year ago was as great as that of the German aircraft industry, and I am still more certain that now our output is a great deal bigger than theirs. They were already just about at the peak of production more than a year ago. And we are steadily increasing our output without any visible peak.

C. G. GREY, who is one of the foremost authorities in the world to-day on matters aerial. He was the Founder and former Editor of *The Aeroplane*, in which journal his knowledgeable and sometimes outspoken articles have been followed with great interest by the flying world

The last phase of air war to be discussed is one about which little information has been given by those in authority, although it has actually had more direct influence on the people of this country than any other, that is the work of the Air Force and of the Navy's Fleet Air Arm over the sea.

Hunting for submarines, and incidentally spotting mines when the chance offers, is particularly the job of the Coastal Command. Whether in their big Short Sunderland flying-boats developed from the Empire boats, which were built for Imperial Airways for use on the Australian and South African route, or in the little Avro Anson twin-motor monoplane landplanes, the Coastal Command has one of the most unpleasant jobs in the air, because it is always over the sea. They are less likely to be shot at than are the bombers and reconnaissance machines which fly over Germany from British or French aerodromes. But at this time of the year, the North Sea and the Channel—and the waters round the rest of the British Isles which (hush !) do geographically include the south of Ireland which calls itself Eire—are very wet and cold looking.

We have been informed officially of flying-boats which have come down and picked up shipwrecked mariners, and of landplanes which have flown round tramp steamers and conducted them to castaways on rafts. Once in a while we are told of aircraft which have sunk or at any rate have attacked enemy submarines. But the Coastal Command has done far more than that.

We have heard still less about what the Fleet Air Arm has done. The coast patrol flying-boats work a long way off shore but the deck-flying aeroplanes from our big aircraft-carriers take up the sea patrols where the coastal patrol leaves off. That means covering most of both the Atlantics.

We have not been told officially where the *Courageous* was sunk but many of us know. The *Ark Royal*, which was not sunk, was reported at Rio de Janeiro and at Cape Town within the past few weeks, but nothing has been heard of all the rest of our fleet of aircraft-carriers, which is by a long way the biggest fleet of its kind in the world, even without the *Courageous*. We may fairly assume that part of their duty is to keep a watch on the trade routes and see that our slow-going convoys of merchant ships are protected as far as may be possible.

I can think of few less pleasant ways of spending one's time than sitting up aloft in a land machine, even though in these days it is provided with flotation gear, looking at the grey sea in the hope of spotting a submarine, and yet hoping, for the sake of one's convoy, there is not one there, and keeping the corner of one's eye on a lot of merchant ships moving at about eight knots, which is the average speed of a slow tramp steamer. At the end of the patrol one has to get back on to the deck of one's carrier, have a few hours sleep and then go and do it again. There is no chance of a fight, there is precious little chance of spotting anything and there is still less chance of promotion, or decoration. It is the least spectacular job in the air and so far about the most useful.

Taking it all round, the Air Force has definitely shown itself well able to compete with anything which Germany can produce in the air, matching one category of our aeroplanes with theirs in the same class. Some types, notably our fighters or pursuit ships and our sea-going craft, are definitely superior.

I never believe in disparaging our enemies, and anybody in the R.A.F. who knows the Germans knows that they are enemies who will call for all the best that is in our men before they are defeated. And the one thing for which we can be thankful is that the youngsters of the R.A.F. to-day, whatever may be the part of the Empire from which they come, are fully up to the standard of 1914–18. That much also we have learned in four months of war.

OTHER THINGS THAN WAR . . .

Lumbermen Are Busy in the Fir Plantations—Bird Life in the Snow

WAR WORK IN THE WOODS.—The country needs our trees and (with no thought of profiteering) we cheerfully respond. We live surrounded by fir trees, great belts of which completely shut us off from the north and east and break the westerly gales before they can strike our chimneys. These belts, since they keep winter almost totally at bay and save us from an infinity of trouble with loosened tiles, we have always jealously guarded. But war demands both sacrifices and new standards, and our firs which stood firm yesterday against the wind will be on their way to France by the week-end.

It is astonishing and comforting to discover how it is possible to mark for the axe four hundred trees and to find when they are gone that their loss is hardly to be remarked. I wonder how many trees there are in an average fir plantation covering thirty acres. Our selected victims have already been carried away and the only visible sign of change is a rich chocolate lane of glorious peat between the smooth white stumps sheered off by the thin oiled-ribbon of the saw. There are glorious pickings, too, for the landowner. Barrow-loads of rich peat for the azaleas in the garden; barrow-loads of the softest wood ash from the bonfires of pine needles and branches, which now lie deep round the raspberry canes and the currant bushes.

Pickings.—There are noble piles of fir branches which will be left to mellow for a year and will then be cut into small handy fire logs by amateur sawyers (who jib at trunks a foot in diameter which need splitting as well as sawing). And there are "chips," another boon to the housewife. These are of two kinds. The large triangular pieces cut out by the woodmen to make way for the saw, and the smaller fragments which fly off the axe. The former, when seasoned, make splendid burning logs, the latter are invaluable for starting fires or as body for the heart of a wood fire sulky under stubborn oak or cherry logs.

But tree cutting has its dangers as well as its benefits for the landowner in war-time. Despite the skill of the woodmen, who can drop a tree along a given line with a margin of error measurable in inches, many small fry (chestnuts and what not) suffer scars and are left ragged and limbless for a year or more, and the danger of fire from bonfires is considerable in this peaty soil. No amount of rain—and we had 13 ins. in the two preceding months—will kill the inflammability of peat. The fire will not die and I have known such bonfires break out 30 yards from their centre weeks after the woodmen have left, and destroy an acre or more of young fir plantation in a night. The best remedy against this danger is to scrape up the ash while still hot and carry it to the fruit garden. Plenty of work for all comes from the felling of fir trees.

Lumbermen Craftsmen.—The local team of lumbermen proved craftsmen of high skill and experience, and the tools of their trade are modern and efficient. Our giant of the forest was an 89-ft. Douglas awkwardly placed in a bend of a narrow, precipitous drive. It was 45 years old and immensely bulky. A ribbon of well-oiled saw severed its base after a few strokes with the axe and it fell within 3 ins. on the line laid down for it. When it fell, there rose a cloud of powdered snow a good 150 ft. into the air. It was cut into three huge lengths and the manner in which the chain-tender drew them up the serpentine drive, and then, taking up a sideways position, drew these mighty trunks easily up the wooden ramps on to the carrier, was a feat of skill well worth watching in a setting of frozen snow. By this time the drive was a sheet of hard ice and the tender, liberally carpeted with saw-dust, just managed to pull those many tons of timber up the ice-shoot before night fell on a scene of moderate devastation. The drive, after the vehicle had gone, was nearly knee deep in brushwood, boughs and needles.

Forestry-minded.—It is really very remarkable how reluctant people in the south of England still are to part with their trees. Unlike Scottish landowners, southern English landowners are not yet forestry-minded. They have not a notion of the principle of the business. They say, it takes a lifetime to grow a tree and an hour to cut it down. Why take the risk of removing something which we may miss and which we cannot replace? They forget that trees, like plums and men, ripe and rot and that the younger generation of trees and men is ever knocking at the door. Old trees, firs especially, past their best, prevent the young seedlings from growing.

In this country of firs, there is no need to plant. Nature does it and does it much better than man can. For rabbits never disturb seedlings but are always destructive of plantings. Man's turn comes later in an orderly uprooting and thinning of nature's work when the seedlings are a foot or so high. After a well-thought-out thinning, there remains a handsome natural plantation which will benefit posterity.

In four years I have parted with 700 fir trees in a small acreage of wood and I do not miss one of them. On the contrary their fall has immensely benefited the wood, and the amenities of the place.

Tracks in the Snow.—I hate snow. In war-time especially it doubles the labour of one's duties and adds immensely to one's domestic chores. But for those who have time to observe, it has its uses. It brings much nearer to us the bird life and animal life around us. The laden bird table, with its varied fare in lard-bell, on nut-strings and scrap-tray, reveals the many types of common birds which hide themselves from our eyes in an open winter.

Besides the commonest birds—thrushes, blackbirds, sparrows, starlings—we observe at breakfast time five kinds of tit, and nut-hatches very occasionally. Wrens never come near a bird table. One sees again (for they often seem to disappear in December) chaffinches in fine plumage, and always the wagtails reappear in January. I used to believe that these last migrate for the winter to Eire to spend the cold months in Dublin's fair city! In spring chaffinches and wagtails and tits are numerically our commonest birds.

The snow, again, leaves clear evidence of the tracks and paths of animals. One can clearly follow the movements of foxes, roedeer, hares, rabbits, and rats. We are not rabbit- nor rat-ridden hereabouts, but roedeer and hares are both again on the increase.

As for moles, they are thriving as never before in my recollection. And grey squirrels are more common than the red squirrel ever was in the happy days before tree rats got loose in England.

The National Gardens Scheme.—Since the gardens scheme came into being nearly £150,000 have been raised for the Queen's Institute and Nursing Associations in England and Wales. In 1939 the sum was nearly £14,000. Of this total Sandringham Gardens alone produced £850. Of the counties the palm goes to Sussex with £1,600, of which East Sussex produced two-thirds. Kent comes next with £1,200. Gloucestershire and Hampshire follow with £600 apiece, Surrey, Somersetshire, and Buckinghamshire exceed £500 apiece.

What of 1940? Great efforts must be made to keep this grand scheme alive. Transport difficulties and many other war difficulties will hit it hard. It is up to garden owners and garden lovers to keep the flame alive. Let small owners combine with their immediate neighbours and offer to throw open two or three contiguous small gardens for a 1s. for the combined tour, if their individual courage fails them. And let them circularise their neighbours and post up notices in neighbouring towns and at cross-roads. Send your offers early to your county organiser. If in doubt apply now to the Secretary, Q.I.D.N., The Hermitage, East Grinstead, Sussex.

Take my word for it, your garden at its appropriate time is worth a visit and will give pleasure to those who find their way to it. But for the duration you must ensure the scheme's success by unusual exertions. You must copy the dictators and employ the weapon of propaganda yourself. You need not copy the dictators too faithfully. You must work on the lines of a sherry-party invitation—that is, you must issue your own notices to the neighbourhood within 6 or 8 miles of you and ensure that all your local friends rally to your garden on your day. If you are lucky enough to live without 5 miles of a large town, see that notices are displayed at strategic points in its centres and, above all, have notices at your cross-roads and a few directing fingers.

Rainfall for 1939.—My prophecy of October was more than fulfilled. We reached the total of 38·08 ins. for the year, nearly 15 ins. for the last quarter. Four miles away at Petersfield the year's fall was at least 4 ins. more. But Petersfield is a wet place. Our rainfall for 1938 was 28·58 ins.

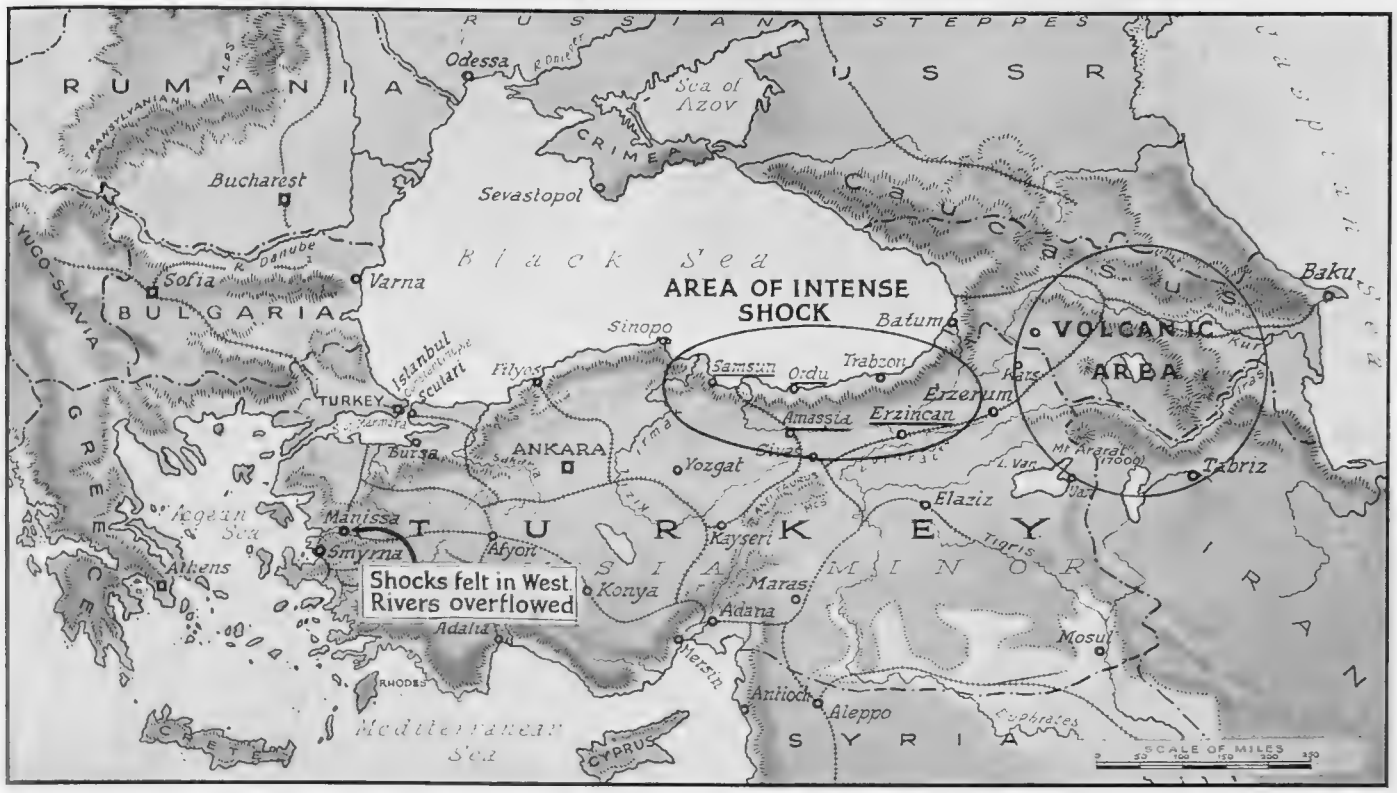
On the five years average, which is all I can speak for, this year's total of 38·08 ins. is almost exactly the mean. A correspondent from Co. Cork sent me his figures up to the end of November, the wettest he ever recorded—viz. 11·16 ins. His total for the eleven months was 40·14 ins., and I suppose he reached 44 ins. for the year.

J. G.

MAKING NEW FORESTS

Many trained members of the Women's Land Army have found work with the Forestry Commission in East Monmouthshire planting and cultivating seedling trees to replace the forests now being cut down for timber, chiefly pit-props for the coal mines. Vast areas of woodlands in Monmouthshire are being cut down to provide the props for South Wales. Most of the timber being cut for war-time use was planted during the last war. In the picture *on the right* the girls are seen putting covers on the seedlings to protect them from frost

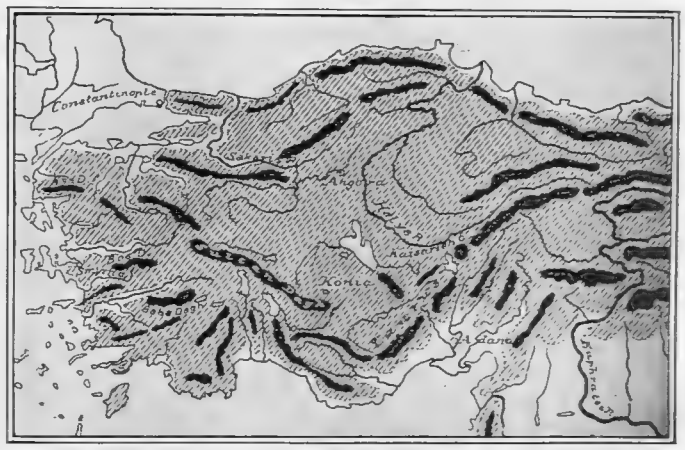
NEWS IN MAPS AND DIAGRAMS



An orographical map of Asia Minor showing the high ground in a darker tint, with the area of chief destruction and the easterly volcanic region

TURKEY (above)—The area in which the earthquake in Turkey—one of exceptional violence—took place was, in its first inception, towards the eastern half of Anatolia where it borders the Black Sea. Later quakes extended the area towards the west, but not with the same violence or to the same extent.

The whole district is described in the late Dr. D. G. Hogarth's *The Nearer East* (Heinemann), by whose courtesy the adjacent map is reproduced. "The plateau is traversed longitudinally by several ridges of an elevation superior to its general mass; and while the centre is comparatively open, such ribs rise one beyond the other towards the north, and decline like hollow steps to the Black Sea. On the south a series of oblique south-easterly ranges join their foot-hills to form a long and lofty wall, geographically known as Taurus. Asia Minor is usually likened to a great cup with an encircling rim." The hills are, in fact, in echelon and pierced by big cañons.



The "cup" of Asia Minor and general scheme of its mountain ranges

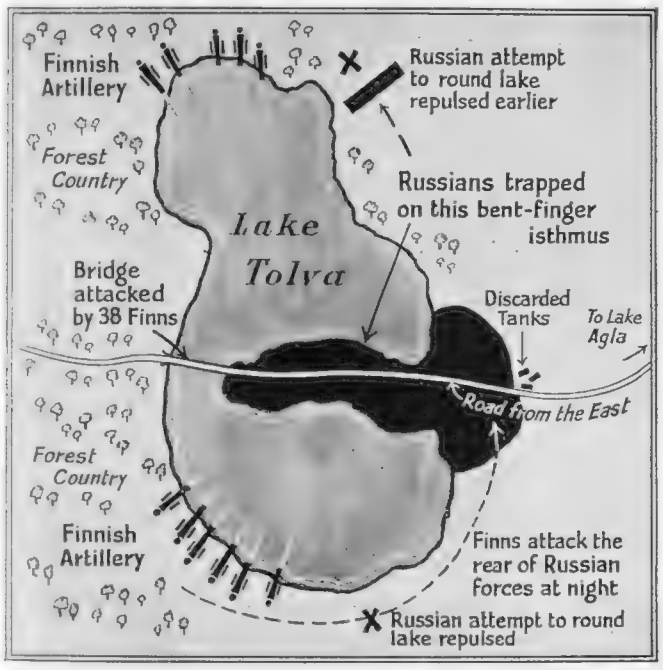


Diagram explaining the tactics of the Finnish command at Lake Tolva. (See note on right)

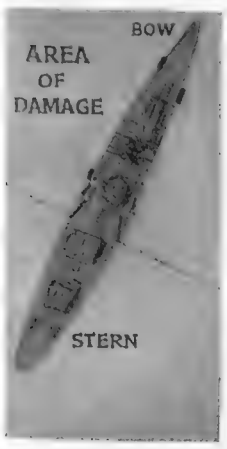
FINLAND (on left).—One of the most striking of the recent victories of the Finns took place at Lake Tolva, which lies to the north of Lake Ladoga and is shaped like an elongated figure eight. A long bent finger of spruce-covered land comes out from its eastern side and almost cuts the lake in two. The main road from the Russian frontier rides on the top of this narrow finger. Then a bridge links it with the western shore. On December 11, by a precipitous advance, the Russian shock divisions had reached the eastern shore of Lake Tolva and poured great masses of soldiers down the twisted link of the elongated finger of the peninsula. Two Russian battalions tried unavailingly to fight their way around the ends of the lake. They also had their artillery and machine-guns hidden in the forest on both ends so that they could reach the narrow peninsula.

In the night two Finnish companies led by their colonel penetrated through the thick forest far behind the Russian lines, machine-gunned the Russians for twenty minutes, and slipped away. Two bodies of Russian troops fought each other in the darkness for two hours.

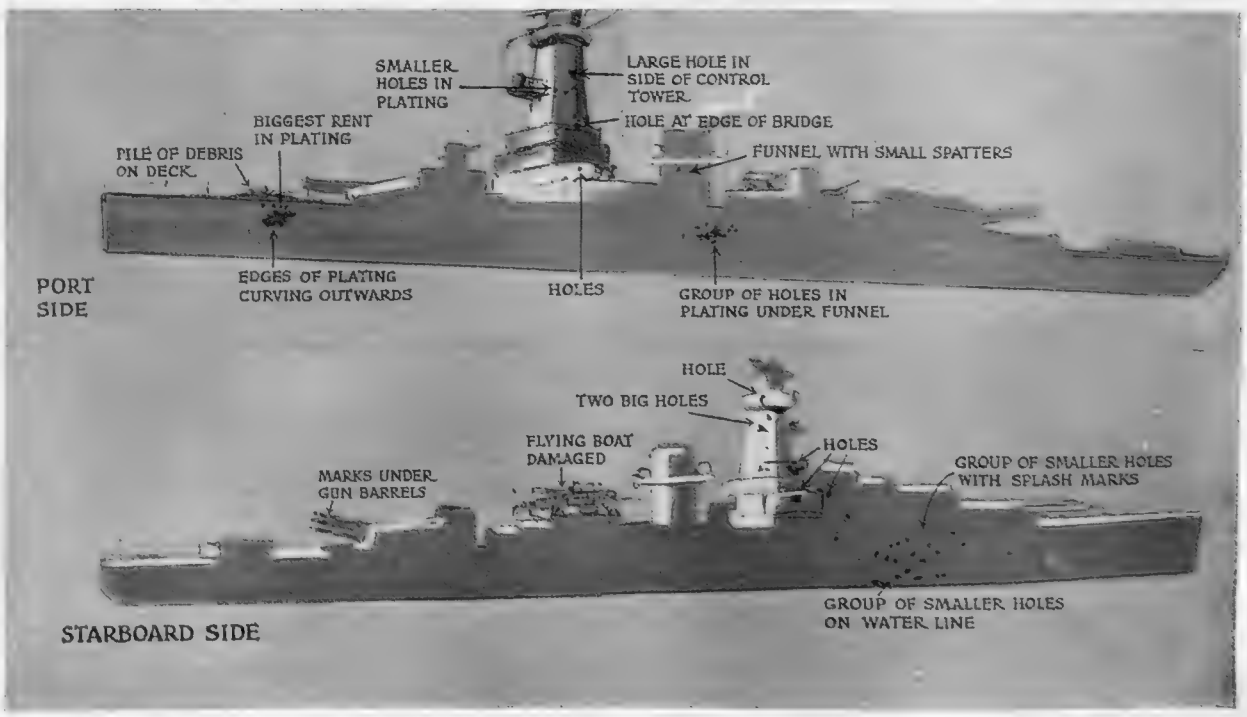
The Finns opened fire from both sides of the lake and thirty-eight Finns charged the bridge which led to the peninsula, which was now raked from both sides with heavy fire. The Finns closed their pincers from both ends of the lake, and the few surviving Russian soldiers ran frantically in headlong retreat.

WHERE "GRAF SPEE" WAS HIT

The *Graf Spee* now lies half hidden by the waters of the River Plate. Her great funnel and searchlight erection has toppled over, leaving only the gaunt control citadel towering above the water. A large part of the hull was shattered by the internal explosions when she was scuttled, so that detailed examination will be difficult, if not impossible. We have therefore indicated here on two diagrammatic views the positions of the shell wounds received from the three British cruisers. No evidence shows injury to the stern portion of the ship. All the injuries recorded lay forward of the line shown here.

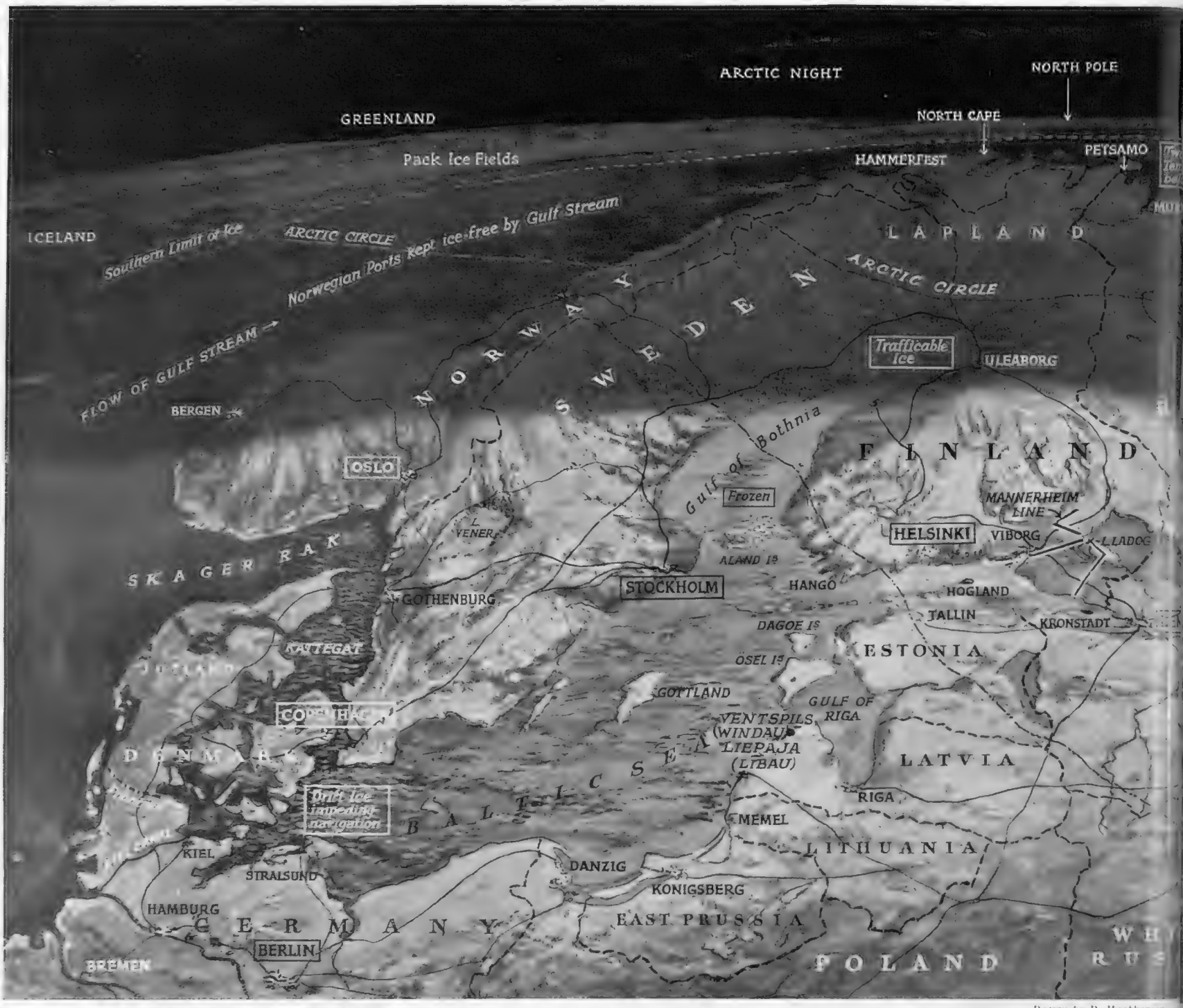


The damage to the *Graf Spee* lay forward of the transverse line indicated above



First diagram showing the position of the shell hits on both sides of the *Graf Spee*. It is now possible to indicate where the pocket battleship was hit by the fire from the three British cruisers. These positions are all based on photographic evidence. There was a considerable amount of spattering by shell splinters at certain points

WHEN WINTER COMES TO THE NORTH



Drawn by D. Macpherson

HOW WINTER GRIPS NORTHERN EUROPE, SHOWING THE LIMITS OF ICY CONDITIONS AROUND THE ARCTIC CIRCLE

ICE CONDITIONS AT COPENHAGEN The port freezes over in winter but the ice can be broken by small steamers. *Below*—The Russian ice-breaker *Yermak* at Kronstadt

HAMMERFEST AFTER THE SNOW COMES This northerly little town presents a picturesque appearance. *Below*—Loose ice in the port of Vendspils (Windau)

In the north of Lapland, where are situated the ports of Murmansk and Petsamo, winter lasts from October to May. The temperature may be 20 deg. below zero (4 deg. below zero Fahr.). Just now the daylight lasts for two hours—"a murky gloom." Snow is everywhere—to last for 150 to 200 days. The northern parts of Norway, Sweden, Finland, and Russia are covered, and the snow becomes universal towards the south-east. The Gulf Stream, after having given the British Isles the benefit of its warmth, proceeds right up the west coast of Norway to meet the cold Arctic currents, providing meanwhile a wide, ice-free channel for navigation and the boon to Norway of ice-free ports up to within the Arctic Circle. It is a different story in the Baltic. Traffic there is rendered difficult by ice, mostly drift, and ice-breakers have to be used. The northern and central part of the Baltic from the Aland Straits is covered with ice only during cold winters. Drift-ice is the commonest form, often covering a considerable part, and forming enormous ice-packs. Only during mildest winters can navigation continue throughout the season without interruption. In severe winters Aland Sea Strait between the Baltic and the Gulf of Bothnia is covered with trafficable ice. The southern part of the Gulf of Bothnia is frozen over every winter along the coast, thus preventing navigation, from the end of November to the beginning of May, by field- or drift-ice. The northern section is, as a rule, covered with ice every winter which breaks up during the end of May. Fogs in the north abound, averaging seven to ten times a month

How Frost and Snow Have Aided the Finns

A RUSSIAN TANK BROKEN DOWN AT THE SIDE OF A FINNISH FOREST ROAD

The tank is of a light pattern with caterpillar track with a gun aperture and observation slot. A hood with eye-pieces apparently to protect a driver from the weather is a novel feature. A small limber appears on the left

A DAMAGED RUSSIAN TRANSPORT COLUMN CAPTURED NEAR THE KEMI RIVER IN THE SALLA DISTRICT

The Russian encampment was surrounded by the Finns and the convoy was put out of action with hand grenades

TWO PRIMITIVE-LOOKING RUSSIAN TANKS CAPTURED BY THE FINNS

Both of them seem to be of a very simple type with a circular gun turret on a flat tray

LITTER OF A DAMAGED RUSSIAN CONVOY ON A FOREST ROAD

The convoy was captured by the Finns in the Kemi River area with hand grenades, automatic pistols and machine guns

MORE TANK LOOT FROM THE SALLA BATTLE

This flat-shaped tank with a circular turret has completely broken down as regards its wheel bases. The caterpillar track has vanished

MATTERS MECHANICAL

PRECIOUS OLD IRON: Unloading old bedsteads at a Salford scrap yard in response to the steel industry's drive to organise the collection of scrap iron on an hitherto unprecedented scale to feed the smelting furnaces of the country

TO SAFEGUARD MINERS' LIVES: A large consignment of pit-props being unloaded at a Welsh docks prior to their being delivered to the coal-mines for shoring up the roofs of the workings

FROSTY FIREWORKS: Electric sparks light up the railway every evening on electrified lines in London—caused by ice formation on the conductor rails, making bad contact with the motor pick-up shoe. The black shadow across the picture is the image of the fast-moving train

THE PETROL WORLD

MOTORING BELOW ZERO

How the Driver and His Car Should Behave in Icy Weather

By A. PERCY BRADLEY, M.I.A.E., A.M.I.Mech.E. (Clerk of the Course, Brooklands)

AS I write these notes we are well and truly in the midst of a cold spell and from my observations on the roads I should think that the various insurance companies have had a very lean time and are hoping that a general thaw will set in quickly. Whether this takes place or not before these words of mine are published is impossible to predict, but as we are almost certain to experience more cold weather before the spring arrives, a few words on how to and how not to drive with the thermometer below zero may be of some use.

Hundreds of accidents have taken place, and the pity of it is that a large proportion are really quite avoidable, if only people would exercise a little common sense. On more than one occasion I have pleaded for the authorities to include in the curriculum of their driving tests some kind of examination paper which would discover if the would-be driver had any idea of the laws of nature which affect his car on the road. The authorities pay far too much attention to applicants for licences knowing how to give manual signals according to the Highway Code. I do not expect that any examiner has ever asked one of his victims how it is that his car is able to move at all. Perhaps some of our larger and better-known schools of motoring do try to implant such knowledge, but I doubt if they are more than half-hearted in their endeavours.

As I crawl along over the icy road surface drivers overtake me at speeds which would even be fairly fast if there was no ice about. In ninety-nine cases out of a hundred they are lucky and avoid any disaster but their driving demonstrates without any shadow of doubt that they are quite ignorant of the fact that their car will only stop, accelerate rapidly, or deviate from its straight course provided that there is sufficient friction between their tyres and the surface of the road.

BLACK-OUT READING: The interior of a bus equipped with a new light which will enable passengers to read their papers in comfort. This lamp has been devised by London Transport and approved by the Ministry of Home Security

When there is ice about, a driver should proceed in such a manner that he is never called upon to use his brakes. He should never put his foot hard down suddenly on the accelerator pedal and if he wishes to deviate from a straight course, such as when overtaking another vehicle or going round a curve his movements should be gradual. To drive as if the road was dry and warm is just asking for trouble and creates a very unpleasant risk for other road users who may have the misfortune to come into contact with his gyrating vehicle. Most drivers of experience can correct a skid on a greasy road but all the skill in the world will not permit a driver to regain control of his car which takes charge of itself on a sheet of ice.

A number of drivers appear to come to a standstill with their wheels spinning on gradients which are icebound or covered with snow. Much of their difficulty would disappear if they tackled the hill in a sensible manner. If the gradient is such that it is likely to call for second gear, there is no use trying to go over the summit on top. A stop on gradients where ice abounds in order to change gear usually results in the car coming to a standstill. The best course to pursue is to change into whatever gear will just enable the car to surmount the rise and to rush the gradient. It is a mistaken idea to change into too low a gear, and judgment is, therefore, called for to select the correct one. In snow, chains on the wheels or, failing those, ropes will be of great assistance, but if the surface is just ice such accessories are worse than useless.

Frequently I see cars approaching me with steam coming out of their radiators, a sure sign that the water in the radiator has frozen whilst the car is travelling along. This unpleasant experience can, of course, be obviated by mixing with the water one or other of the well-known anti-freezing mixtures which can be purchased at most garages, but blanking off the lower half of the radiator will in most cases prevent the water freezing. If the fan can be disconnected without stopping the dynamo from operating so much the better, because in really cold weather the engines of most cars run far too cool for efficiency when frost is about.

Starting first thing in the morning when the thermometer is low may cause some anxiety, particularly if the engine is not too good in this direction in the ordinary way. For better or for worse, the car I am running is a perfect pig when it is cold. About half an hour before I put the self-starter in motion I fill the radiator up with boiling water and apply rags soaked in hot water to the portion of the induction pipe nearest the carburetter. Even then I frequently find myself in difficulties, but I am perfectly certain that if I did not take these precautions I would have to call in assistance. On a cold and frosty morning many people succeed in giving their engines too much petrol rather than too little and in consequence the plug points become saturated and are probably bridged across with a bead of liquid. In such cases the only thing to do is to take out the plugs and dry them, or, better still, heat them.

Car owners who are fortunate enough to have located their garage on top of a hill or in a position where a down gradient can be conveniently reached by pushing the car will find that they really are in clover. The car, of course, should be presented to a gradient in a forward direction and not allowed to run backwards with reverse gear in engagement.

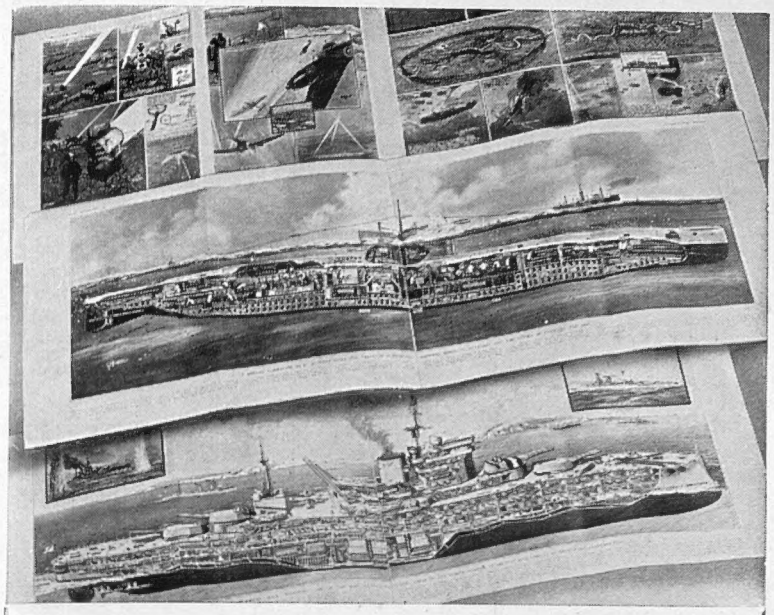
When trying to use the gradient in a forward direction for starting the engine, top gear should be engaged and not low gear, for the simple reason that operations are reversed; the back wheels rotating the engine instead of vice versa. When these conditions prevail low gear actually becomes terrifically high and if used may cause damage to the transmission system.

In spite of the war a few motor-cycle clubs intend to organise some simple reliability trials, though naturally the petrol ration curbs their activities.

It must be remembered, however, that the Government allow every holder of a motor vehicle licence sufficient coupons entitling him or her to buy sufficient fuel for approximately 200 miles per month of pleasure motoring. As many of the more enthusiastic club members only derive pleasure from motoring or motor-cycling when they are engaged in reliability trials or other forms of competition, it seems quite likely that many of the clubs who have closed down will start again before long in order to provide the necessary opportunities for these members to enjoy themselves.

THE SHAFTESBURY HOMES AND "ARETHUSA" TRAINING SHIP

Year in, year out, the above Society constantly maintains and trains 1,165 poor boys and girls. The boys in the homes are trained for definite careers such as tailors, shoemakers, etc., while the girls are trained for domestic duties. In the Training Ship *Arethusa* the Society is still training poor boys to become good sailors. Many old *Arethusa* boys are now serving their country as officers in the Royal and Merchant Navies. This National Service of caring for poor children requires your constant financial assistance. Legacies are earnestly solicited and donations will be gratefully acknowledged from the headquarters of the Society at 164, Shaftesbury Avenue, London, W.C.2.



THERE'S A WEALTH OF ENTERTAINMENT IN "INSIDE KNOWLEDGE"

"Inside Knowledge" contains 32 pages (size 20½" × 14½") of special drawings taken from "THE ILLUSTRATED LONDON NEWS" showing interior features and complete working details of famous Ships, the Aeroplanes of the Great Powers, and authoritative details of Home-Defence Organisation, how Wireless Waves Guide Aeroplanes . . . and many more. It is beautifully bound in a blue, "leather" finished cover. You will find much to hold your attention in this amazingly interesting and educative book.

PRICE 3/6 (By Post, Inland 4/3, Foreign and Eire 4/6)

Obtainable from W. H. Smith & Sons branches, and principal booksellers or direct from:—

THE PUBLISHER, 32 ST. BRIDE ST., LONDON, E.C.4

The 'THRESHER' Trench Coat

At pre-war price

£7.7.0

with detachable 'Kamelcott' Lining

with detachable Sheepskin Lining **£10.10.0**

without Lining - **£5.15.6**

State height and size of chest when ordering.

The fact that more than 28,000 officers wore a Thresher in the Great War is proof of the thorough protection which this, the original trench coat, provides against wind, cold and rain.

As well as being extraordinarily hard-wearing and virtually 100 per cent. wind and water-proof, it is designed to give the utmost comfort and freedom.

For those who wish it, a 'Kamelcott' fleece lining is supplied, yet with it the 'Thresher' is 2 lbs. lighter than the regulation greatcoat and just as warm.

★ *'Threshers' in all sizes at the moment available for immediate delivery*

THRESHER & GLENNY LTD. MILITARY TAILORS

152-153 STRAND, W.C. 2

City Address:—85, GRACECHURCH ST., E.C. 3

★ *Send P.C. for "Guide to Kit and Equipment"*

KEEP VAPEX HANDY FOR COLDS

Attack colds with Vapex in early stages before germs multiply. Use Vapex, a drop on your handkerchief . . . deep-breathe pleasant, powerful antiseptic vapour into germ-breeding nose and throat. Vapex clears way through mucus-laden passages, destroys germ nurseries . . . quickly relieves stuffiness and congestion, stimulates whole respiratory system . . . dispels cold entirely—naturally—safely.

From your Chemist, 2/- & 3/-

V198 THOMAS KERFOOT & CO., LTD.

THE WAR and the WAIFS

THE WORK FOR THE CHILDREN WHO HAVE NO ONE TO HELP THEM MUST GO ON

Children needing care and protection because of the war are daily joining

OUR FAMILY OF 5,000

Please send a GIFT, however small, for our

WAR EMERGENCY FUND

so that the children may not suffer

WAIFS & STRAYS SOCIETY

OLD TOWN HALL, KENNINGTON, S.E.11

Bankers: Barclays, Ltd.

THE "OSOBRITE" STOVE

(BRITISH MADE)

is a revolution in slow combustion stoves. Its unique feature is that it gives a cheerful anthracite fire with the advantages of a continuous burning stove. Also burns any other fuel as an open or closed fire.

Prices from **£6 : 2 : 0**

Illus. Catalogue No. R.11 Post Free

THE LONDON WARMING CO., LTD.

2 Percy Street, Rathbone Place, W.1

CONTINENTAL HOTEL

FRANCE

Cap Ferrat.—Gd. Hotel.—Between Nice and Beaulieu. Reopening. Full south. Quiet and peaceful. Beautiful park overlooking sea.

if a thing's BRANDED and consistently ADVERTISED IT'S BOUND TO BE GOOD

W.D.

IN TIMES OF CRISIS, DON'T YOU THINK THERE'S NOTHING LIKE THAT WELCOME DRINK

GRANT'S MORELLA CHERRY BRANDY

In Quest of Good Hotels

By ASHLEY COURTENAY

Hotels Have Not Increased Their Prices—Those Who Live in Them Will Benefit Under the Rationing Scheme

THE year 1940 is as yet only in the toddling stage, but already we are aware of the fact that this new child is going to have a restrictive influence on our normal living habits.

We are not going to be able to use our cars with any degree of liberality, if at all. Horse-power tax is raised, whilst petrol supplies are cut down. The price of all commodities continues to increase, and before 1940 is many days older we shall (forgive me for mentioning it!) be receiving a red chit from our income tax collector which has a decided ring of finality about it.

The only prices which have not been raised are hotel tariffs, and though as the days go on we shall find that we can no longer go as freely to the butter dish and the sugar basin as we did, I am convinced that those who have no ties of home life are best off to-day when they can live in an hotel.

The hotel proprietor relieves one of all the responsibilities of registration. He is better able to buy than any individual member of the public. His knowledge of catering enables him to utilise in many an appetising way commodities which are not as yet restricted.

Even if he has to cut down to make rationing ends meet, he is the best judge of effecting economy without disturbing one's comfort.

Naturally, care must be taken in the selection of one's hotel. Rationing may prove to be the final nail in the coffin of many a badly-managed hotel, whilst the well-conducted ones will, I hope, reap their reward for consistently nailing the flag of value to their masthead.

Here are examples of hotels where I would gladly reside with the knowledge that the responsibilities of 1940 housekeeping were in far more competent hands than mine.

Last week I revisited Grove Hall Hotel at Twyford in Berkshire. How excellently it fits into this present-day picture of rationing.

About forty-three miles from London and three-quarters of an hour from Paddington, and then only a minute's walk from the station. A car is superfluous. Petrol and horse-power tax is saved.

One's in the country, yet London is at one's door, so to speak. But there is another reason for residing at Grove Hall in war-time, and it is one which few know as yet, unless they have been behind the scenes, and the scene in this case is inside Mr. and Mrs. Tisdall's minds.

When they commenced as hotel proprietors at Grove Hall some six years ago, they had already made up their minds that they wanted to develop the feeling of home rather than an hotel. And so from the outset there has never been any suggestion of stinting.

Every bedroom has its private bathroom. That means a heavy weekly outlay for fuel, for the water is always hot. There are always in winter big coal fires burning in the lounges. But above all, the meat is English only; the groceries are the best procurable from Harrods, and if you've the welfare of others at heart, I can tell you that the staff get exactly the same fare as the visitors.

Shrewd buying hoteliers might shrug their shoulders at such uneconomical methods of running an hotel. Yet Grove Hall prospers and will do so, for the public are not slow at picking out a bargain and "from 4½ guineas a week" at Grove Hall is a gift.

There are other hotels whose proprietors are obsessed with the aim of perfection rather than that of parsimony, and if you are thinking of residing in London (and it is safer than most places these days) let me remind you of Dorset Square Hotel, off Baker Street.

Mrs. Burlingham will not allow rationing to upset *her* ideals of perfection. Chickens and poultry are not rationed and will continue to come up daily from Cornwall. And even if there must be limitations of butter it will still be of the best in Dorset Square.

The well running of all hotels, be they large or small, is vested in individuals. The smaller the hotel, the more personal is the ultimate issue between good and bad, and if you find Dorset Square Hotel as excellent as I know it to be, you must thank Mrs. G. Burlingham and not me.

Finally, for a first-class hotel where performance is again portrayed by personalities.

I refer to the Rosemullion Hotel at Budleigh Salterton, an hotel of which I have never heard an adverse word of criticism, unless it was dislike of the colour of the lounge room carpet. Here, I am perfectly certain that whatever the problems may be there will be little signs of rationing in the days to come, there will be warmth in one's bedroom, and in the corridors.

The coal fire in the smoke-room will continue to be an inducement to an afternoon's nap, and if poultry must supplant red meat, surely this sunny corner of South Devon is strategically placed for supplies. One can live handsomely these days at Rosemullion Hotel at five guineas a week. Fortunate indeed are those whom the Gods so favour.

Mr. Ashley Courtenay is always pleased to advise "Sphere" readers of hotels, both large and small, known to him personally. Letters should be addressed to him, c/o the Editor, THE SPHERE, *32–34, St. Bride Street, London, E.C.4. Personal and telephone inquiries, however, cannot be accepted.*

TO AVOID
Pain and discomfort
AFTER MEALS

Why should you dread mealtimes, and suffer such discomfort afterwards?
If acid is turning your food tough and making it impossible for your stomach to digest it, take 'Milk of Magnesia' Tablets. They will relieve the acidity at once, and therefore banish your indigestion; and it need never return. Buy the Tablets now and save yourself another attack.

Neat flat boxes for the pocket, 6d. and 1/-. Also family sizes, 2/- and 3/6. Obtainable everywhere.

'MILK OF MAGNESIA' BRAND TABLETS
SLIP A 6D. BOX IN YOUR POCKET OR BAG

'Milk of Magnesia' is the trade mark of Phillips' preparation of Magnesia.

WHY WAR?

By Charles Spencelayh

THE ACADEMY PICTURE OF THE YEAR

In response to many requests this appealing picture, which was reproduced in "The Tatler," has now been published in separate form.

Specially printed copies in full colour on art paper (size of picture 13½ × 10½ ins.). Price 1/6 (post free), or mounted on plate sunk mounts ready for framing 3/6 each.

Order with remittance should be sent to:—

THE PUBLISHER, 32-34, ST. BRIDE ST., LONDON, E.C.4

Even the wealthiest cannot buy better than
BRONCO TOILET PAPER

Even those of modest means cannot buy more economically

In Bronco Toilet Rolls quality and value are, to a remarkable degree, linked with economy.

Where, for instance, is there a toilet paper so smooth, so soft, and yet so strong as Bronco?

Or where is it possible to buy a roll containing approximately 700 sheets of such superfine paper for so small an outlay?

Bronco is definitely the greatest value in toilet paper it is possible to buy, hence its enormous popularity from palace to villa.

ALSO OBTAINABLE IN INTERLEAVED FORM

Bronco
The De Luxe Toilet Paper

Made only by
THE BRITISH PATENT PERFORATED PAPER CO. LTD.
HACKNEY WICK, LONDON, E.9

PRINTED IN ENGLAND by EYRE & SPOTTISWOODE LIMITED, *His Majesty's Printers*, at East Harding Street, London, E.C.4, and Published Weekly by ILLUSTRATED NEWSPAPERS, LTD., 32-34, St. Bride Street, London, E.C.4.—*January* 13, 1940. Entered as Second-class Matter at the New York (N.Y.) Post Office, 1903.

Park your Family in safety at

HOTEL RIPOSO, BEXHILL

Even if *your* business is in London, you can send them easily by fast electric train.

Even if there's an air raid (very unlikely at Bexhill), the safest place is the seashore. HOTEL RIPOSO is almost at the water's edge. *Verb. sap.*

Write to-day for brochure.

We occupy a restful setting with the green hills of South Devon as our vista, whilst two acres of grounds surround and supply us. The sea, too, is but five minutes away. The welcome of a well-built Georgian house, wide windowed and sunny—furnished with taste—and run by those who understand what good cooking and good beds really mean.

CEDAR SHADE

COUNTRY HOUSE HOTEL

SIDMOUTH

Winter in the Sun

Here, in this unspoilt corner of South Devon where sea, sun, and soft air combine to hasten the early spring, is this first-class hotel directly overlooking the water. Good Golf. Bridge. Private bathrooms and Suites.

Winter Terms from 5 Gns. a week

ROSEMULLION HOTEL

BUDLEIGH SALTERTON, SOUTH DEVON

AND *NOW*, Mr. Business-Man!

If you must stay within reach of Town during the war, why not make your base at

THE RED HOUSE, LEATHERHEAD

Frequent electric trains reach London in half an hour. A most comfortable, quiet hotel, a lovely garden, excellent tennis courts. Telephone: 2271

EASTON COURT, CHAGFORD, DEVON

We are still going strong. Neither petrol restrictions nor black-outs preclude those who are appreciative of that blessed word "tranquility" from seeking us out. Here at the foot of Dartmoor we live and rejoice in the pursuits of the country, or in just eating, sleeping, reading, and talking.

Winter Terms from **3½ gns.**

RAVEN HOTEL, DROITWICH SPA, WORCESTERSHIRE

Droitwich Brine Baths for the Treatment of Rheumatism and Allied Complaints. This four-star Hotel, opposite the Baths, provides homely comforts and genuine English catering, 100 rooms, Lift, Central Heating, Night Porter. The hotel is fully described with photographs in our Brochure "Life Worth While." May we send you a copy? Droitwich 2224-5.

Terms from **4½ gns.** a week

COOMBE HOUSE HOTEL, NR. SHAFTESBURY, DORSET

Away from the atmosphere of war. Situation healthy and beautiful. Every comfort. Trains met Semley Station by appointment. *Tel.: Shaftesbury 130*

Terms from **4 gns.** forextended stay.

LUPTON HOTEL, CHURSTON FERRERS, SOUTH DEVON

A fast through train from Paddington will bring you to the Lodge Gates of this very real country house (once the home of a peer) situated amidst the lovely scenery of South Devon. Even if you are awed at the approach you will quickly thaw at your reception, for here is dispensed hospitality and homeliness in full measure. A good place to know of for a country house Christmas. May we send you a Brochure?

R.A.C. Terms from **3½ gns.**

MAER BAY HOTEL, EXMOUTH, SOUTH DEVON.

An atmosphere of tranquility and peace still pervades the beauty of the lovely Exe estuary on the South Devon Coast . . . Here, at the Maer Bay Hotel, one may enjoy all the charm of the glorious countryside and sea amid surroundings of comfort, and cuisine to delight an epicurean palate. Golf, Tennis, Riding, Fishing. Fully licensed. Recommended A.A. & R.A.C.

Inclusive Terms from **4 gns.** per week.

GREENBANK HOTEL, FALMOUTH

A REFUGE FROM WINTER

Soft air, sunshine, and laughing waters without. Within, a haven of comfort. An inviting bedroom, private bathroom if you wish, or a suite. A first-class cuisine. A magnificent sun lounge, and a cheerful cocktail bar . . . all overlooking the water.

Winter terms from **4 gns.**

LODGE HILL HOTEL, PULBOROUGH, SUSSEX

FOR SECURITY, COMFORT, AND REST. One of the most beautifully situated Hotels in Sussex, overlooking the Arun Valley and Downs. Fully licensed and perfectly equipped in every detail, with the comfort, cuisine, and service of West End standards, and suites with private bathrooms. Surrounded by 30 acres pine trees and gardens. Golf, Riding, and Tennis. Detailed particulars on application to Captain Claude Waller. Telephone: Bury (Sussex) 111.

Terms inclusive **A GUINEA** A DAY. FROM **6 GUINEAS** A WEEK.

IN THE VALE OF ETERNAL BEAUTY

MOUNT CRAIG HOTEL. *Near* **ROSS-ON-WYE**

Here at this country home of charm it is good to live . . . always

Winter Warmly

Specially reduced terms for long period residence

at **THE GRAND TORQUAY**

Write S. PAUL for fuller details

THE SPHERE REGISTER OF HOTELS

The majority of these hotels are personally known to our Hotel Correspondent, Mr. Ashley Courtenay, who will be pleased to give further details regarding them to readers who write to him, c/o "The Sphere."

ENGLAND

Aldeburgh.—Wentworth Hotel. Tel. 312 & 313.
Bath.—Lansdown Grove Hotel.
Bexhill-on-Sea.—Hotel Riposo. Tel. 472.
Blackpool.—The Headlands. A.A. & R.A.C.
Bognor Regis.—Royal Norfolk Hotel. Tel. 40.
Boscastle.—Welltown Manor Guest Hse. Tel. 17.
Bournemouth.—Bourne Hall Hotel. Tel. 5.
Bournemouth.—Canford Cliffs Hotel.
Bournemouth.—Hinton Firs Hotel.
Bournemouth.—Tollard Royal.
Budleigh Salterton.—Rosemullion Hotel.
Bushey.—Bushey Hall Hotel.
Cambridge.—Blue Boar Hotel. Tel. 3030.
Chagford (Devon).—Easton Court.
Chipping Campden.—Cotswold Hse. Htl. Tel. 330
Churston Ferrers (S. Devon).—Lupton Hotel.
Droitwich.—Raven Hotel.
Dulverton.—Carnarvon Arms.
Dulverton (Som.).—Woodcote Hotel. Tel. 129.
Exmouth.—Maer Bay Hotel.
Falmouth.—Greenbank Hotel.
Folkestone.—Queen's Hotel. Telephone 2219.
Goring-on-Thames.—The Bull. Tel. Goring 57.
Hove.—Dudley Hotel. Completely modernised.
Leatherhead.—The Red House Hotel.
Lytham St. Annes.—Clifton Arms Hotel.
Lyme Regis.—Hotel Alexandra. Tel. 10.
Manchester.—Bowdon Hydro.
Ockham.—The Hautboy. Ripley 20.
Paignton.—Ravenswood. Cliff Road.
Plympton (nr. Plymouth).—Elfordleigh Hotel.
Pulborough (Sussex).—Lodge Hill Hotel.
Ross-on-Wye.—Mount Craig Hotel.
Salisbury.—Old George Hotel. Tel. 3189.
Sanderstead (Surrey).—Selsdon Park Hotel
Scarborough.—The Grand. 'Phone: 1053.
Shaftesbury (Dorset).—Coombe House Hotel.
Sidmouth.—Cedar Shade Hotel.

ENGLAND—*continued*

Sidmouth.—The Torbay Hotel.
Torquay.—Grand Hotel.
Torquay.—Roslin Hall Hotel. Tel. 4373 (2 lines)
Treyarnon Bay (Cornwall).—Waterbeach Hotel.
Twyford (Berks.).—Grove Hall Hotel. Tel. 106.
Weymouth.—Royal Hotel. Tels. 627 & 628.
Worthing.—Greystoke Private Hotel. Tel. 991.

GREAT NORTH ROAD

(Figures in brackets show mileage from London)

Catterick (229).—Bridge House Hotel.

ENGLISH LAKES

Keswick.—Borrowdale Hotel. Borrowdale 24.
Keswick.—Royal Oak Hotel.

LONDON

Ambassadors Hotel, W.C.1. Tel. Euston 1456.
Bailey's Hotel, Gloucester Road, S.W.7.
Dorset Square Hotel. Off Baker St., N.W.1.
S. Kensington Htl. Queen's Gate Terrace, S.W.7.
United Services Hotel, S.W.7. Tel. Wes. 7131.

SCOTLAND

Tomintoul (Banffshire).—Richmond Arms Htl.
Stranraer.—Auld King's Arms.

WALES

Llandudno.—Imperial Hotel. Facing sea.
Llangollen.—The Hand Hotel.

NORTHERN IRELAND

Belfast.—Grand Central Hotel.
Rostrevor.—Great Northern Railway Hotel.

EIRE

Dun Laoghaire (Kingstown).—Ross's Hotel.
Glendalough (Co. Wicklow).—Royal Hotel.
Greenore.—Great Northern Railway Hotel.
Greystones (Co. Wicklow).—Grand Hotel.
Kingstown (Co. Dublin).—Royal Marine Hotel

WE WILL SEND

THE SPHERE

To members of the ROYAL NAVY, and H.M. FORCES in FRANCE, at REDUCED RATES.

6 Months 19/6 *(Post Free)* **3 Months 10/-**

ORDER FORM

TO THE PUBLISHER,
THE SPHERE,
32-34, ST. BRIDE ST., LONDON, E.C.4

Please enter a subscription to THE SPHERE, for the following, in accordance with your special offer to members of the Royal Navy, and H.M. Forces in France, for ☐ 6 months ☐ 3 months.

NAME.....

ADDRESS.....

MY NAME.....

MY ADDRESS.....

A LITTLE

BOVRIL

PROMOTES ENERGY

PRINTED IN ENGLAND by EYRE & SPOTTISWOODE LIMITED, *His Majesty's Printers*, at East Harding Street, London, E.C.4, and Published Weekly by ILLUSTRATED NEWSPAPERS, LTD., 32-34, St. Bride Street, London, E.C.4.—*January* 13, 1940. Entered as Second-class Matter at the New York (N.Y.) Post Office, 1905.